ISSUE NO.04 | VOLUME 1

SEPTEMBER 2025

Silicon Oasis

powered by Arizona Ascent

TABLE OF CONTENTS

Silicon Oasis Magazine

Published by Silicon Oasis Initiative Inc.
A 501(c)(3) nonprofit organization
www.thesiliconoasis.org
info@thesiliconoasis.org

Editorial Inquiries

info@thesiliconoasis.org

Mailing Address

Silicon Oasis Initiative Inc.
4750 S 44th Pl, Suite 120,
Phoenix, AZ 85040

A MESSAGE FROM OUR EDITOR

Kyle Macdonald
Editor-in-Chief,
Silicon Oasis

This September, Arizona's startups are proving the desert is more than a backdrop — it's becoming a launchpad.
In Phoenix, **Nuclearn** raised $10.5 million to bring AI into nuclear operations, showing how local expertise can scale globally and power the clean energy transition. Down in Tucson, **Kuairu** is transforming a solar-powered drying tower into a solution for food waste, giving discarded crops a second life. And on the capital side, **AZ-VC** has launched its second fund, doubling down on non-coastal founders and proving startups no longer have to leave Arizona to grow big.

These stories aren't isolated — together they capture the grit, ambition, and creativity fueling Arizona's rise.

From energy to sustainability to venture capital, the ecosystem is accelerating.
If September shows us anything, it's this: Arizona isn't waiting for the future of innovation. We're building it now.

Kyle MacDonald
Co-Founder, Silicon Oasis

VISION & IMPACT

Transforming Arizona into a global tech hub led by local founders, built for the future.

Silicon Oasis is a nonprofit dedicated to uniting Arizona's tech ecosystem. Our mission is to strengthen the local innovation economy by bringing together founders, investors, and entrepreneurs—and by creating spaces where collaboration can thrive.

We do this in three key ways:

- Centralizing the Ecosystem through startup-focused events and practical workshops led by experienced builders and funders.
- Cultivating Community by fostering authentic, expectation-free connections that go beyond traditional networking.
- Spotlighting Talent with dynamic video podcasts and media that highlight Arizona's most promising innovators.

PHOENIX JOINS THE GLOBAL AI COLLECTIVE

By Jennifer Conrad, Contributing Editor

In startup culture, it's easy to get lost in the noise of funding announcements and flashy product launches. But what if the real opportunity in artificial intelligence isn't the next billion-dollar valuation, but teaching founders how to actually use the technology?

That's the mission of **The AI Collective,** a nonprofit community that unites more than **70,000 pioneers—founders, researchers, operators, and investors—exploring the frontier of AI**. What began as an intimate gathering in a San Francisco living room has grown into a global grassroots network fueled by shared curiosity and collaboration.

This fall, the Collective officially launched its **Phoenix chapter**, co-led by **Rob Anderson** and **Anisia Corona**, with **Mahesh Vinayagam** and **Caia Taback** joining the leadership team.

Why Phoenix?

"Phoenix is becoming a tech hub, but the ecosystem has been missing a hands-on track for AI," Anderson said. "Accelerators can help you raise capital. We want to help you build something that works."

That pragmatic approach is aimed squarely at founders and builders—the exact audience Silicon Oasis serves.

Beyond the Chatbox

For Anderson, AI's future isn't just about chat interfaces. "Most people think of ChatGPT when they think of AI," he explained. "But if you want AI to order your Starbucks, it's not just a chatbot problem. You need integration with identity, location, payments, delivery services. That requires multiple systems working together."

This emphasis on agents and workflows is what the Phoenix chapter will cultivate: a place where local founders can test automations, explore integrations, and move AI from concept into product.

A Team Built for Builders

The chapter's leadership reflects the diversity of the AI ecosystem. Corona is advancing AI in healthcare, Vinayagam is focused on enterprise systems, and Anderson bridges consumer and enterprise innovation. Together with Taback, they bring a mix of technical depth and community engagement.

"What's the point of AI if we can't use it and improve our lives?" Anderson asked.

The AI Collective describes its events as "gatherings designed for deep connection and meaningful dialogue," from small meetups to large demo nights. In Phoenix, that means fostering a builder's culture—sharing failures, breakthroughs, and lessons learned in real time.

Advice for Founders

Asked what advice he'd give early-stage entrepreneurs, Anderson didn't hesitate: "Lead with genuine curiosity. Pick a real problem, and let AI help you solve it. Don't just bolt it on because it's trendy."

That ethos—curiosity, experimentation, and problem-solving—may be exactly what Phoenix's startup ecosystem needs to hear as it matures. As the city positions itself as a launchpad for innovation, the AI Collective offers founders not another hype cycle, but a roadmap to building with purpose.

Join the Community:

Scan the QR code below:

INSIDE CLEANTECH CONNECT & DEVHACKS

By Sylvie Stephens, Contributing Editor

The energy was electric. Across the Valley, founders, students, and innovators gathered for a weekend that showcased the future of Arizona tech: **Cleantech Connect** and **DevHacks Season 2.** Together, these two events highlighted how sustainability, entrepreneurship, and talent are converging to position Arizona as a hub of innovation.

Cleantech Connect: Building Community Around Sustainability

The night opened with **AZ Cleantech**, a Silicon Oasis pillar partner that has grown into a network of more than 1,000 innovators in just two years. Their mission is simple but ambitious: bring people together to solve Arizona's toughest challenges in water, energy, and air quality.

"We want to build a really great community here that is all working in cleantech," the organizers said. "Arizona has big problems to solve. By finding common ground, we can deliver solutions that benefit our communities now and for generations to come."

The tone was collaborative, not corporate — a rallying call to work side by side. With monthly meetups (free and open to anyone, often paired with food and drinks), AZ Cleantech has become a hub where ideas don't just stay ideas. They turn into partnerships, projects, and momentum.

Arizona's Largest Student-Led Hackathon

While Cleantech Connect focused on sustainability, DevHacks Season 2 brought raw energy. Hosted by Dhanush Vardhan and the team at DevLabs, the hackathon drew more than 300 student builders, making it the largest student-run hackathon in state history.

"This isn't just a hackathon where people code," said Vardhan, president of DevLabs. "We've brought in startup founders, VCs, and entrepreneurs who've raised millions. People come here to meet mentors, find teammates, and sometimes even walk away with job offers. DevHacks is becoming Arizona's talent hub for startups."

The competition included multiple hacker tracks, cash prizes, and even pathways to full-time roles. For students, it was a chance to test their skills. For founders and investors, it was a chance to meet the next generation of talent.

Silicon Oasis had **boots-on-the-ground coverage**, with ambassadors and Arizona tech enthusiasts actively participating. For many, the hackathon proved what the community has been saying all along: you don't need to leave Arizona to build or succeed — the ecosystem is taking shape right here.

Industry Partners Back the Builders

The impact of DevHacks went beyond students. Leaders across the startup community stepped up to support the event, including **Ryan Moorehouse**, CTO of **Ruck**, who served as a judge. "I've benefited a lot from this community," Moorehouse said.

"These are the people who will build the next companies. Supporting them with mentorship and resources is a passion of mine and of our company."

That spirit of giving back reflects a broader theme: Arizona's tech community grows stronger when founders, educators, and investors work together to fuel the next generation.

Why It Matters

Together, Cleantech Connect and DevHacks showcase the **two engines powering Arizona's innovation economy**. One side is tackling global sustainability challenges. The other is cultivating the talent pipeline to solve them.
As Vardhan put it: *"If you want to move the needle in Arizona tech, you have to put in the hours. There's no plan B."*

Looking Ahead

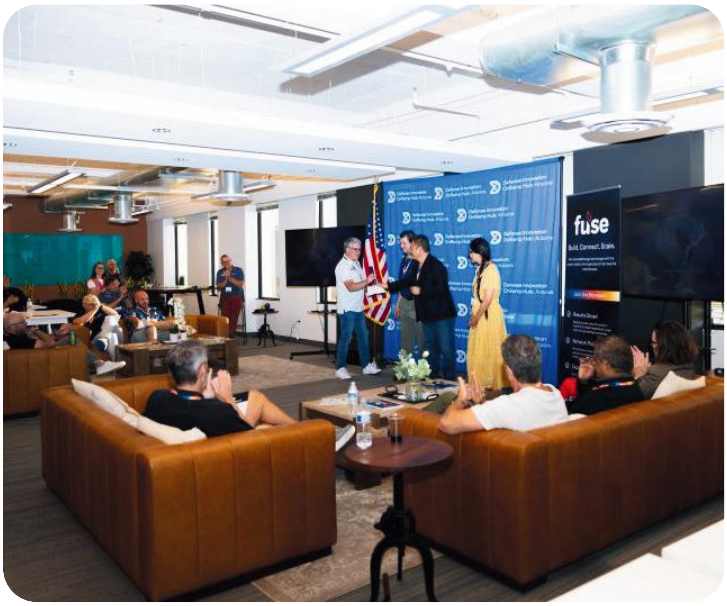
With **AZ Cleantech scaling its reach** and **DevLabs entering its second year**, Arizona isn't waiting for innovation to happen somewhere else. It's building it here — in classrooms, co-working spaces, and hackathons across the Valley.

The weekend ended not with applause, but with buzzing conversations, new teams forming, and laptops still glowing late into the night. For some, it was the start of a career. For others, the spark of a company. For Arizona, it was proof that **innovation, tech, and sustainability are colliding in the desert — and the momentum is only growing.**

FUSE FALL COHORT IGNITES ARIZONA TECH

By Jennifer Conrad, Contributing Editor

With sweeping views of the city skyline and a crowd of founders, investors, and partners, the night marked another milestone in Arizona's push to become a national innovation hub.



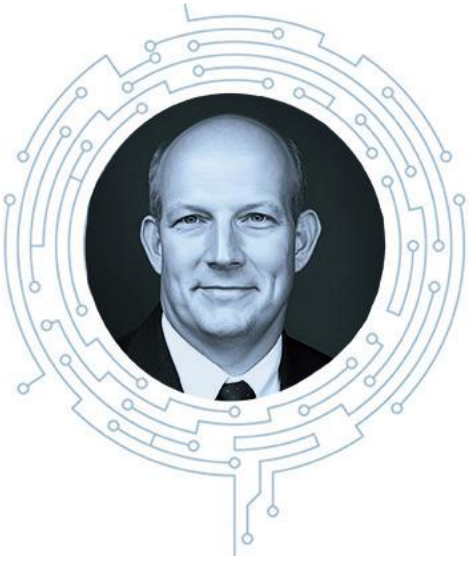
"This is the best part of the whole deal — kicking this off and getting people real excited," said **Tom Douglas**, Managing Partner of Fuse. "These startups are fantastic, and I can't wait for them to be in the ecosystem."

Hoplink: Secure Comms for the Tactical Edge

When asked why Hoplink matters right now, co-founders **Alia and Charlie** didn't hesitate: today's communications are fragile. Field operators often rely on a single link — Wi-Fi, satcom, or 5G. If it goes down, they must scramble to reconfigure manually.

Hoplink's software eliminates that risk. It scans every network in the environment, aggregates weaker signals into a stronger connection, and keeps operators online across all channels at once.

Their next step: deepen ties in the DoD community, connect with contractors and manufacturers, and launch pilot programs that prove Hoplink's resilience in real-world missions.



Giganter Technologies: AI at Hardware Speed

Jeff Cook of **Giganter Technologies** explained the breakthrough with clear energy: the company transforms trained AI models into circuit form. Instead of relying on layers of software, the models run directly on FPGAs or ASICs, delivering near-zero latency and using a fraction of the power.

"It takes that AI and we pipeline it," Cook said. "Then we eliminate all the latency and power."

For edge environments — where every millisecond and watt matters — this approach could redefine what's possible.

Kana Systems: Turning Data Into Decisions

Bryant Russell, VP of Finance at Kana Systems, positioned his company as **decision advantage experts**. The challenge? The Department of Defense often operates with data scattered across disconnected sources.

Kana's AI solution pulls those sources together and generates clear, actionable recommendations for what to build, where to act, and how to respond.

"Our focus is on clarity in complexity," Russell explained — a statement that defines their mission to turn overwhelming information into trusted guidance.

Community Perspective

The event wasn't just for founders. **Phoenix Battle**, a Silicon Oasis ecosystem ambassador, summed up the atmosphere with optimism, "I'm hoping this time brings even more capital than the last cohort — which was already the biggest in the U.S."

"That sentiment echoed throughout the night: this isn't just about building companies, but building momentum for Arizona's role in the national tech landscape.

Arizona's Tech Momentum

The Fuse Fall Cohort launch wasn't the only signal of growth this week. Across the Valley, other parts of the ecosystem were moving just as fast — showing how Arizona's tech story is being written in real time.

In Flagstaff, **Phoenix Forward** hosted its latest founder retreat, drawing more than 50 entrepreneurs into the pines for a weekend of mentorship and connection. Among the advisors was **Aaron Matoss**, CEO of the recently exited Paradox, who shared lessons from scaling and selling a successful Arizona software company. The retreat reflects Phoenix Forward's bold mission: to position the city as one of the nation's top software hubs by 2035.

Back in Phoenix, the clean energy community prepared for its own spotlight moment. **AZCIe Tech** announced its next **CleanTech Connect** at the Biltmore — a gathering of founders, investors, and industry leaders united by the vision of fueling Arizona's clean technology economy. For those working in renewable energy, storage, or sustainability, it's become one of the most important rooms to be in.

Together, these moments — the Fuse cohort, Phoenix Forward's retreat, and AZClean Tech's upcoming event — illustrate a powerful truth:

Arizona is no longer talking about building a great tech ecosystem. It's doing it. Every new program, every founder gathering, every deal closed adds to the momentum pushing the state forward.

Looking Ahead

The Fuse Fall Cohort launch was more than an event. It was a statement. Arizona is stepping into its role as a national hub for innovation — not by talking about what it could be, but by showing what it is becoming.

As Douglas put it, **"These startups are fantastic, and I can't wait for them to be in the ecosystem."**

And with that, Arizona takes another step toward its vision of a thriving, nationally recognized tech hub.

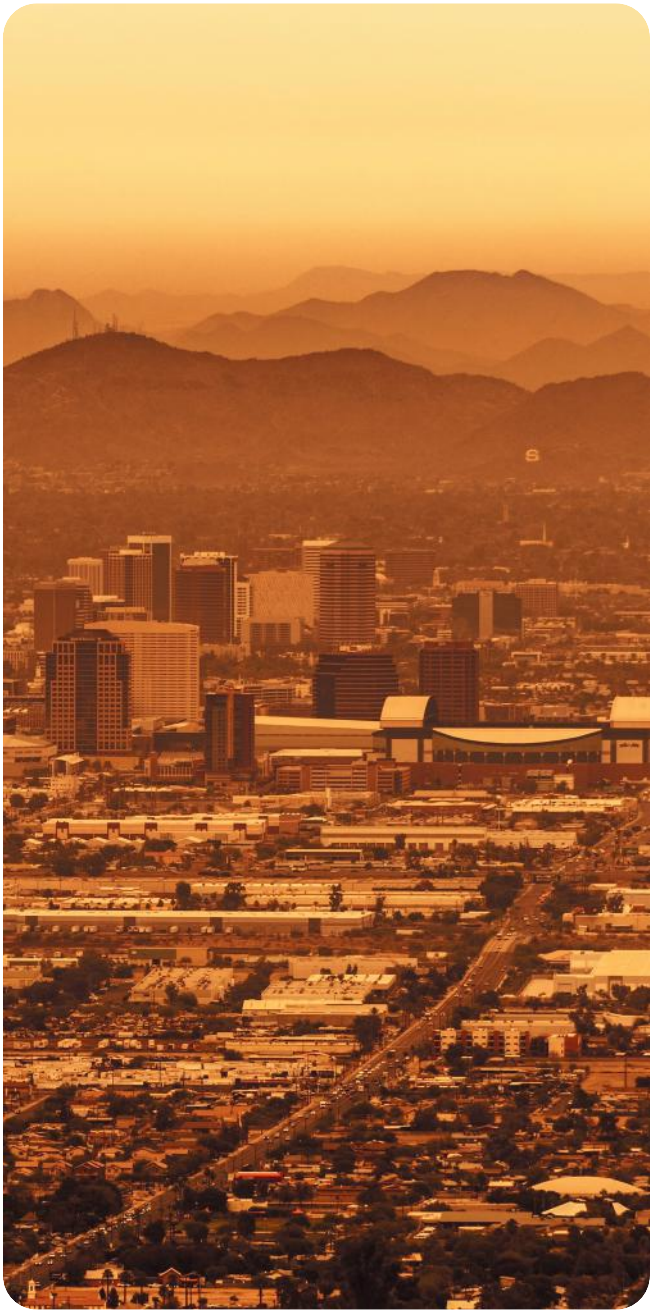
MESA'S NEXT FRONTIER

HOW HADRIAN IS DEVELOPING AI-POWERED MANUFACTURING FOR ARIZONA'S FUTURE

By Kayla Johnson, Contributing Editor

A massive change is taking place in Mesa's outskirts. More than just a factory, Hadrian's upcoming "Factory 3 (F3)" is a wager on Arizona's growing prominence in robotics, advanced manufacturing, and technology. With $200 million spent, 350 jobs anticipated, and hardware and software in one location, F3 is poised to play a significant role in the Southwest's developing industrial environment.

However, don't imagine the soiled shop floors of the industrial facilities of the past. Inside F3, rows of shining robotic arms and AI-powered software systems will coordinate to create precision parts for defense and aerospace firms, which depend heavily on security, accuracy, and speed. Mesa is at the forefront of a national discussion about the future of American manufacturing thanks to this technology, which feels more like science fiction than small-batch machining.



"This is more than just a structure," a Hadrian representative states. It is an ecology. We're building a space where human talent, tech, and automation come together to produce at a level never previously seen in the industry. There will be roughly 350 employment in that ecosystem over the next few years, ranging from software engineers and robotics specialists to machine operators and technicians. Since talent pipelines will be just as important to Hadrian's hub's success as steel and concrete, local educators and workforce development are already getting ready. F3 is an opportunity for Mesa's community colleges and vocational schools to teach the next generation the skills that will make Arizona competitive in the coming decades.

The repercussions don't end there. Real estate brokers are keeping a close eye on the industrial corridor as building continues, expecting a rise in demand for services and accommodation. Contractors and vendors are lining up to provide everything from lunch burritos for on-site employees to specialized machinery. Additionally, Hadrian's entrance is a branding victory for local leaders rather than just an indication of new hires. Once thought of as Phoenix's more sedate neighbor, Mesa is gradually gaining recognition as a hub for cutting-edge business. F3 should be completely operational by early 2026, humming with never-ending machinery and individuals who know how to make them sing. For the time being, the message is obvious as steel beams rise against the sun of the desert: Mesa is not merely constructing another factory. It's creating a future in which Arizona is known for its inventiveness, tenacity, and next-generation production.

ARIZONA'S NUCLEAR EDGE

NUCLEARN SECURES $10.5 MILLION IN FUNDING

By Jennifer Conrad, Contributing Editor

In the Arizona desert, just west of Phoenix, the **Palo Verde Generating Station** has quietly powered millions for decades. As the largest nuclear plant in the U.S., it represents Arizona's long-standing role in energy. Now, a Phoenix startup is showing the state may also shape nuclear's future.

Nuclearn, founded by engineers who lived the challenges of nuclear operations, has raised a **$10.5 million Series A round** to bring artificial intelligence into one of the world's most safety-critical industries. The round was led by **Blue Bear Capital**, with participation from **SJF Ventures** and follow-on investments from **AZ-VC** and **Nucleation Capital**.

Born from Frustration

Nuclearn's founders, Bradley Fox and Jerrold Vincent, spent years inside nuclear plants watching experts lose time to documentation, compliance loops, and endless rewrites. That frustration sparked the idea for a platform to automate repetitive, administrative work.

"AI is driving innovation in nuclear, but what's missing is operational expertise," Fox says. "We're nuclear professionals building AI that understands plant needs from day one."

Meeting Industry Pressures

The timing is urgent. **Data center energy use is expected to more than double by 2030**, driving demand for around-the-clock clean power. Meanwhile, **one in four nuclear workers will retire in the coming years**, putting institutional knowledge at risk.

Nuclearn's platform tackles both challenges. Already deployed in **65+ reactors worldwide**, it automates condition reports, outage planning, and regulatory documentation.

"We're solving the challenge of applying AI in safety-critical environments," Vincent says. "Our system doesn't just process terms — it understands context and compliance."

Arizona's Role

Though Nuclearn's reach now spans the U.S., Canada, and the U.K., its foundation is Arizona. The state's nuclear legacy — anchored by Palo Verde — and its growing venture ecosystem gave rise to the company's mission.

AZ-VC's investment reinforces that point. Fresh off launching its second fund, the firm is making Arizona-based startups like Nuclearn a priority.

"As one in four nuclear workers retires, Nuclearn provides plants with tools to avoid knowledge loss while upholding safety standards," says **Joey Barrick, Principal at SJF Ventures**.

"We invested because the founders know nuclear operations firsthand," adds **Ernst Sack, Partner at Blue Bear Capital**. "This isn't hype — it's a platform already delivering value at scale in one of the most trust-dependent industries."

Looking Ahead

With **440 reactors worldwide** and more on the way, the market for nuclear-specific AI is expanding. Nuclearn plans to use the new funding to grow its team, strengthen its platform, and expand globally.

"AI will become as essential as the control room," Vincent says. "Not to run plants, but to free people to do what they do best."

For Arizona, Nuclearn's rise underscores a bigger trend: the desert is not only home to America's largest nuclear plant, but also to innovators redefining how nuclear power meets the clean energy future.

ARIZONA STARTUP TACKLES WATER WASTE

By Jennifer Conrad, Contributing Editor

In the desert, every drop matters. Yet Arizona is also home to one of the world's most water-intensive industries: semiconductor manufacturing. With Intel and TSMC investing billions into mega-fabs across Phoenix, the question of how to balance growth with scarcity has become unavoidable.

That tension is where **Purity ReSource**, a Tempe-based startup, is stepping in. The company is building technologies to reclaim the ultra-pure water and chemicals that chipmaking consumes — and in doing so, is positioning Arizona as a leader in sustainable manufacturing.

From Problem to Purpose

At the heart of Purity's mission is **isopropyl alcohol (IPA)**, a cleaning agent fabs depend on to keep wafers free from contaminants. The challenge? More than **60% of U.S. supply — and all ultra-high purity IPA — is imported**, largely from China and South Korea. With chip demand projected to grow nearly 100% in the U.S. by 2027, that reliance is both risky and unsustainable.

Purity's technology closes the loop. Their system restores IPA to **electronic-grade quality**, removes trace metals to parts per trillion, and recycles water that would otherwise be discarded. One large system, deployed at scale, could reclaim nearly **370,000 gallons annually** — enough to cut emissions equivalent to taking 300 cars off the road.
For Purity, it's not just about efficiency. It's about making sure Arizona's chip industry can thrive in the desert without draining its future.

Local Backing for a Global Problem

Earlier this year, Purity closed a **$681,421 seed round** to accelerate development. The raise included support from **Arizona State University**, which provided a grant for optimization and field testing, as well as investment from the **Arizona Commerce Authority**.

It's part of a larger bet: that Arizona can be both a hub for semiconductor growth and a proving ground for the water technologies that will make that growth possible.

Purity has also launched an **Ampoule Cleaning Service**, which deep cleans chemical vessels used in fabs. The process is marketed as eco-friendly, safe, and efficient — another piece of the puzzle in reducing waste across the supply chain.

Why Arizona

Arizona's role makes the stakes clear. Scientists warn the **Southwest mega-drought could persist through the end of the century**, with **Lake Mead projected to hit critically low levels by 2027**. Groundwater beneath the Sonoran Desert is also being depleted at alarming rates.

Pair that with the **CHIPS and Science Act of 2022**, which has supercharged semiconductor investment in the U.S., and Arizona becomes the ultimate test case: how do you sustain water-intensive growth in a water-scarce region?"If Arizona can solve water for chips, it can solve it anywhere," one advisor said.

The Bigger Picture

Globally, fabs consumed nearly **300,000 gallons of IPA in 2023**, worth an estimated $338 million. Purity believes its process could cut those costs by up to 50% while reducing U.S. reliance on imports. For an industry now considered as strategic as oil once was, that's not just good business — it's national security.

Building for the Future

Purity's vision extends beyond immediate savings. By reclaiming chemicals, reducing waste, and maximizing every gallon, the company is building infrastructure for a **sustainable semiconductor future**.

it's a vision rooted in Arizona but designed for global impact. In the desert, water is the new oil. Purity ReSource is betting that Arizona will prove it.

AZ-VC DOUBLES DOWN

NEW FUND SIGNALS ARIZONA'S VENTURE CAPITAL MATURITY

By Jennifer Conrad, Contributing Editor

In Arizona, raising venture capital once meant booking a flight to San Francisco. With the launch of **AZ-VC's second fund,** that reality is shifting. The state is no longer just an afterthought in the innovation economy — it's positioning itself as a place where billion-dollar companies can start, scale, and stay.

Founded in 2022, **AZ-VC** began with a clear mission: channel serious venture dollars into startups outside the traditional coastal strongholds. At the time, nearly three-quarters of all U.S. venture capital flowed to companies in California, New York, and Massachusetts — home to just 22% of the nation's population. That imbalance left founders in markets like Arizona hustling harder for capital, relocating their companies, or watching their financial wins siphon back to Silicon Valley.

AZ-VC's first **$115 million fund** helped flip that script. Anchored by **Pinnacle West Corporation (NYSE: PNW)** and backed by

a roster of Arizona-based investors including **Western Alliance Bancorp, Trinity Capital, and Salt River Project**, the fund made early bets on rising stars like **Etched, Bluetail, Nuclearn, Stax.ai, Velocity Engine, Soraban, Uplinq, Orama, and Peerlogic**.Those startups aren't just growing — they're helping rewrite Arizona's role in the national venture conversation.

The Selby Factor

At the center of it all is **Jack Selby**, an early PayPal executive, longtime Arizona resident, and Managing Director at **Thiel Capital**. His approach to investing is simple but sharp: back post-revenue founders at a **70% discount to coastal valuations**, then leverage global networks to help them scale."We invest where others aren't looking," Selby says. "That's the arbitrage.

Selby brings more than capital. He brings access — to Silicon Valley's boardrooms, to strategic partners, and to the mentorship of a PayPal Mafia alumni network that has helped launch some of the world's most iconic companies.

From Desert to Momentum

Evidence of Arizona's maturation is already visible. Earlier this year, **Scottsdale-based Paradox**, a candidate hiring experience platform, was acquired by Workday in the **largest M&A in state history**. For Selby, it's validation that Arizona startups don't just compete — they can lead.

"Coastal venture capital is broken," he says. "Too much money is chasing too few companies at astronomical valuations. Meanwhile, world-class entrepreneurs in markets like Tempe or Chandler remain overlooked."

Why It Matters

For Arizona founders, **AZ-VC II** represents more than money. It means:

- **Local capital** that reduces the pressure to relocate.
- **Recycled wins** that stay in the state, fueling future generations of startups.
- **Validation** that Arizona belongs in the national venture narrative.

It also signals a new chapter: Arizona isn't just a low-cost alternative for founders priced out of the Bay Area. It's becoming a place where global companies can be born.

"The days of flying to San Francisco for funding are over," Selby says. "The next great tech story might just start — and stay — here."

Looking Ahead

With its second fund, AZ-VC is positioning itself not as a one-time disruptor but as a **cornerstone of the region's venture landscape**. For founders, investors, and Arizona's communities, that means one thing: the venture desert is beginning to bloom.

MIND + HORMONES

PRICKLY PEAR HEALTH PRIORITIZES WOMEN'S HEALTH BY PUTTING COGNITIVE WELLNESS FIRST

By Kayla Johnson, Contributing Editor

One of the least talked about but most experienced phases of life, menopause, is being tackled by a firm with a name inspired by the desert in a tiny Phoenix office. A women-led femtech firm called Prickly Pear Health is creating digital solutions to support women in maintaining their cognitive wellness and brain health during this transition, when symptoms like weariness, memory loss, and brain fog can subtly destroy their confidence, careers, and quality of life.

According to founder and CEO Imen Maaroufi Clark, "we've normalized the hot flashes, but we rarely talk about what menopause does to the brain." Women feel alone because of the silence just when they need help. Technology that proactively helps women navigate the cognitive side of menopause with tailored insights, data-driven recommendations, and an emphasis on long-term wellness is the company's daring and long overdue

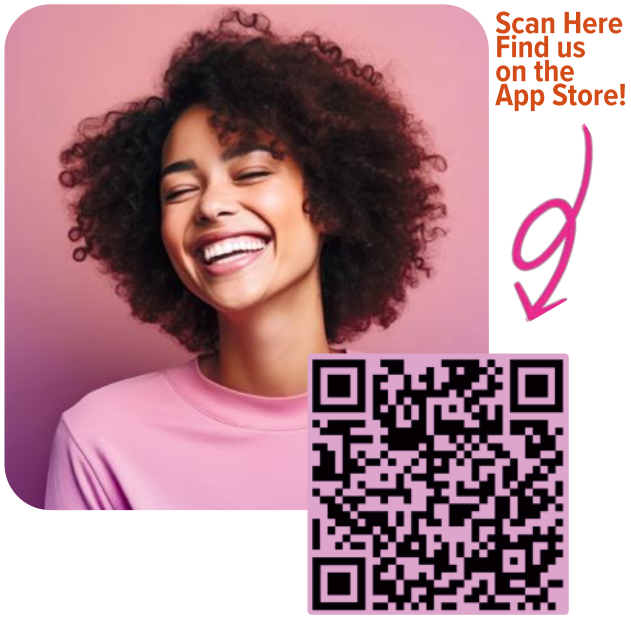
solution. It's a novel approach in the femtech field, which has always focused on pregnancy and fertility.

However, don't imagine the soiled shop floors of the industrial facilities of the past. Inside F3, rows of shining robotic arms and AI-powered software systems will coordinate to create precision parts for defense and aerospace firms, which depend heavily on security, accuracy, and speed. Mesa is at the forefront of a national discussion about the future of American manufacturing thanks to this technology, which feels more like science fiction than small-batch machining.

Investors are paying attention. A pre-seed investment round that surpassed Prickly Pear Health's initial target of $250,000 was closed earlier this year, drawing institutional support from investors located in Arizona and Bayless Ventures. The startup will use the funding to broaden its platform, strengthen research partnerships, and advance clinical validation, which is an essential step for any health-tech business hoping to gain the trust of both doctors and patients.

In addition to the technology, Prickly Pear is reaching a vast and underserved market. Over 1.2 billion women globally will experience menopause at some point by 2030. The majority of health solutions only address hormonal or physical discomfort, yet for many people, cognitive loss is the symptom that lasts the longest. In a competitive wellness market, Prickly Pear stands apart because of its focus on the brain. The startup's origins in Arizona are also significant. Thanks to its collection of medical schools, research hospitals, and investor networks eager to explore biotech prospects, Phoenix has emerged as a quietly growing center for health innovation. By starting here, Prickly Pear gains access to a community that values science and has an entrepreneurial mindset.

However, the app's attraction to the ladies who will use it is straightforward: peace of mind. A digital companion that reframes menopause as a period of growth rather than decline, provides practical resources, and supports their experiences. According to Clark, "this is about empowerment." "Women should have access to solutions that support them in maintaining their intelligence, self-assurance, and success throughout their lives." Prickly Pear Health is demonstrating that innovation doesn't have to originate in Silicon Valley to have an international impact as the femtech industry expands. Here in the desert, the most resilient ideas can occasionally flourish.



KUAIRU'S SOLAR TOWER
FIGHTING FOOD WASTE AT SCALE

By Sylvie Stephens, Contributing Editor

Every year in the U.S., nearly **40% of food never reaches a plate**. It ends up in landfills, producing methane and wasting the water, labor, and resources that went into growing it. It's one of the world's most urgent challenges — and one Arizona startup believes it has an answer.

From a **25-foot solar-powered drying tower** built at the University of Arizona's **Campus Agricultural Center**, **Kuairu** is working to prove that food waste doesn't have to be inevitable.

From Research to Startup

Kuairu was founded by CEO **Renata Coelho**, co-founder **Pedro Coelho**, and UArizona professor **Goggy Davidowitz**, who developed the tower technology through his research in the **College of Agriculture, Life & Environmental Sciences**.

What began as a research project on sustainable feed for insect livestock evolved into a larger vision: keeping fruits and vegetables from rotting before they can be eaten.

"**TLA has been phenomenal**" said Davidowitz, crediting **Tech Launch Arizona** with helping the team license the technology, connect with investors, and refine its business plan. "They helped us refine the vision, connect with partners, and think bigger. What started as a research prototype is now becoming a commercial solution."

How the Tower Works

The solar drying tower uses vertical design to create natural heat gradients, drying produce in **hours instead of days**. The process not only preserves nutrients and reduces pathogens but also **recaptures water vapor** that would otherwise be lost.

"**Drying foods is as old as time,**" explained Pedro Coelho. "What makes this different is that it works at scale, with zero carbon footprint, powered entirely by the sun. It's a simple but powerful way to turn something that would have been wasted into something valuable again."

A Mission That's Personal

For Renata Coelho, tackling food waste is about more than technology.

"**The problem of food waste is massive and urgent,**" she said. "Farmers put in incredible work, time, and resources to grow crops. It is heartbreaking to see those crops end up in landfills. Our goal is to give that effort a second life."

Davidowitz echoes the sentiment. "**As a scientist, I wanted to do something that matters for society.** This project is that chance."

Arizona as the Testbed

Arizona is uniquely positioned to lead this fight. Just south of Tucson, **Nogales** is a port of entry for billions of pounds of produce each year — and more than **300 million pounds are discarded annually**.

"This is exactly the right place and right time," said Pedro Coelho. "Being close to Nogales shortens the feedback loop with customers and lets us see the scale of the problem firsthand. Once people see this in action, the question will be, 'Why didn't we do this 50 years ago?'"

Locating close to Nogales allows Kuairu to test, refine, and scale quickly, working directly with distributors and farmers who see food waste as a daily reality.

Looking Ahead

The team is currently in its customer discovery phase, talking with produce distributors, farmers, and global organizations. Within the next two years, Kuairu plans to deliver its **first commercial system**, a milestone the founders believe will unlock broader adoption.

"**Our first goal is simple**" said Renata Coelho. "Find the right partner, prove the value, and build from there."

From Arizona to the World

Kuairu is one of more than **150 startups launched through Tech Launch Arizona**, part of the university's mission to turn research into real-world impact.

With food waste costing billions globally and undermining sustainability goals, Kuairu's work demonstrates how **Arizona's research ecosystem** can drive global solutions.

"Once people see this technology in action," Pedro Coelho said, "the only question will be why we didn't start sooner."

CONGRESS IN YOUR POCKET

DANIELA CUÉLLAR ZAPATA'S MISSION TO REWIRE DEMOCRACY WITH AI

By Jennifer Conrad, Contributing Editor

What if you could rehearse your pitch with a digital version of your senator before stepping into the room? For **Daniela Cuéllar Zapata**, founder and CEO of **WIPP AI**, that question isn't hypothetical. It's the future she's building.

"One day, you'll have a congressperson in your pocket," she told me during the AI Collective launch in Phoenix.

Her startup is building **digital twins of legislators** — AI-powered agents that help advocates, lobbyists, and eventually citizens themselves engage with democracy more effectively.

The Path to Founding

Cuéllar Zapata's story is as global as it is local. **Born in Mexico City**, she moved to **Arizona** for high school and college, where her fascination with civic engagement deepened. Later, she earned her **MBA from Harvard Business School**, graduating in 2025.

At Harvard, she sharpened her vision, guided by mentors who encouraged her to think bigger. "There is magic when you commit," one professor told her — advice that still drives her today.

After graduation, she based herself in **Boston**, where her CTO works, while her head of business development established a presence in **Washington, D.C**. Yet Arizona still feels like home — which is why WIPP AI will **make its public debut in January at the Public Affairs Council (PAC) conference in Arizona.**

Why WIPP AI, Why Now

Lobbying is a **$4 billion industry in the U.S.**, and preparation is everything.

Advocacy teams spend countless hours poring over voting records, campaign speeches, and policy statements before meeting lawmakers.

WIPP AI's solution: let AI do that heavy lifting. Using a **retrieval-augmented generation (RAG) system**, WIPP AI ingests a legislator's public footprint — from **voting history and campaign speeches to interviews and even books** — and creates a **dynamic twin** that can interact with users.

Advocates can then rehearse conversations, anticipate objections, and refine messaging — saving time, money, and guesswork.
"We're automating the workflows of political advocacy," Cuéllar Zapata explained. "It's about making democracy more accessible, not less."

The Digital Arena

While today's focus is **federal lobbyists**, WIPP AI's long-term roadmap is even more ambitious. The team envisions a **digital arena** where multiple lawmaker twins interact in real time, simulating policy debates before they unfold in Congress. When I asked what happens when the twins of **Elizabeth Warren** and **Ted Cruz** debate inside the system, Daniella laughed: "Chaotic. Absolutely chaotic."

The company already has baseline twins for all 535 members of Congress, with Warren and Cruz the most advanced. Arizona's own Senator Mark Kelly may be next on the list.

The Founder's Edge

What sets Cuéllar Zapata apart isn't just technical vision — it's her bicultural lens and Arizona roots. She understands the gap between citizens and institutions firsthand. Her ability to bridge worlds — Mexico City and Arizona, Harvard and Capitol Hill, startup energy and civic duty — gives her a unique edge as a founder.

She's also pragmatic. WIP AI is currently raising a **pre-seed SAFE round,** with about **half secured**. Rather than chasing hype, she's seeking investors who care about both **agentic AI** and the **future of civic engagement**.

Advice to Other Founders

For other founders navigating the uncertainty of early stages, her advice is simple but powerful: "There is magic when you commit. Kill the optionality, go all in, and momentum will unfold." It's a mantra she lives by — and one that explains how a founder at a Phoenix cocktail hour could so confidently describe a future where every citizen has a lawmaker's twin in their pocket.

FOLLOWING THE WATER
A MISSION TO MAKE WATER GO FURTHER

By Josue Romero, Managing Editor

The desert sky over Phoenix had turned the color of rust, the way it does when a haboob rolls in. Dust storms like that can make the world feel apocalyptic—dark, disorienting, unsafe. Most people would take it as a reason to stay home. Not Heather Tugaoen.

"I trust myself," she says with a grin. "It's everybody else I don't trust. One-way streets downtown? Forget it. I've been in the car going the wrong way, and you realize real quick—you don't want to be there again."

That mix of humor and grit says a lot about Heather. Chaos doesn't rattle her; it pushes her forward. And in her work today—as the North American lead for **Watergenics**—chaos is everywhere. Between water scarcity in Arizona, wasteful industrial systems, and the scramble to power an AI-driven future, Heather is building something designed to bring clarity to it all.

Heather's career began firmly in the world of water.

After moving to Arizona in 2012, she dove into graduate school at ASU, earned her PhD in engineering, and even spent time teaching as a professor. Eventually she shifted into consulting, designing water systems for municipalities and industry. It was stable work, the kind of career that could last a lifetime.

Then came the leap. Watergenics, a Berlin-based company, asked her to lead its expansion in North America. The job meant leaving behind a secure corporate track and jumping into the high-stakes, acronym-filled world of startups.

"Corporate America was cushy," Heather admits. "I could have stayed there forever. Instead, I jumped into exponential chaos. But it's the kind of chaos that creates change."

The Technology: Abaya

At the center of Watergenics' work is Abaya, a real-time water quality sensor paired with an AI analytics platform. The device can be dropped into a canal, reservoir, or industrial site, quietly collecting continuous data about the water. The insights help operators fine-tune systems, cut costs, and waste less.

To make it relatable, Heather points to what you might find under your own sink. "That little filter that makes your tap water taste better? That's reverse osmosis. Scale it up and you've got a system for desalinating seawater or producing the ultra-pure water semiconductors need. The only difference is—those industrial membranes cost half a million dollars."

Here lies the problem: a typical system recovers only 40 to 60 percent of the water it processes. The rest becomes brine—salty, concentrated waste with nowhere to go. In California, it can be piped into the ocean. In Arizona, it piles up as an expensive liability. "Brine is going to be one of the state's biggest challenges in the next 15 to 50 years," Heather says. "That's where data and optimization matter most."

A Human Lens

Despite the complexity of the technology, Heather never loses sight of the human side. She and her husband are raising two young children, and she laughs about how her mom still describes her job in the simplest terms: "She makes dirty water clean."

For Heather, that description isn't entirely wrong—and it cuts to the heart of why she works so hard. "We make sacrifices for our kids all the time," she says. "Why wouldn't this be the same? Clean water and a livable planet—that's the real ROI."

Arizona's Moment

If there's one place that understands the urgency of water, it's Arizona. The state's dependence on the Colorado River, shrinking supplies, and looming CAP canal cutbacks have made conservation a daily reality. Heather believes that scarcity has sharpened Arizona's mindset.

"Scarcity creates awareness," she explains. "Here, people want to do more with less. They ask the tough questions. That's where our technology shines."

Hard Tech, Real Impact

In a startup landscape dominated by software and SaaS, Heather is unapologetic about building hardware. "Software rides on hardware," she points out. "AI, chips, energy—it all depends on water. If you want to see the future, follow the water."

It's not the easy path. Hard tech takes longer to build, costs more, and isn't always investor-friendly. But Heather is convinced it's the path that matters. "Plug it in. Walk away. Get the data. That's what we're building," she says. "And that's how we help the world use water smarter."

REWIRING ATTENTION

CAPTAVATE'S MISSION TO REDEFINE ADHD CARE

By Josue Romero, Managing Editor

Arizona native **Aby Bizuneh** grew up straddling two worlds: the sciences and the arts. At her "super nerdy" high school she immersed herself in philosophy, Latin, Greek, choir, and drama—yet always felt pulled toward engineering. At Arizona State University she bounced through political science, electrical engineering, and computer science before settling in biomedical engineering and later a master's in bioengineering.

The turning point came during an ASU lecture when a professor played recordings of neural signals captured from inside the brain. "It was the coolest thing ever," Aby remembers. "I thought, I want to do that."

A Diagnosis and a Spark

In her senior year, Aby was diagnosed with ADHD. The signs had long been here—losing things, struggling to listen, friction in daily life—but now she had an explanation.

She sought treatment and discovered **neurofeedback therapy**: an EEG headset in a clinic that trained her brain to focus by rewarding attention in real time.

"It worked," she says. "But sessions were expensive and exhausting—45 minutes of the hardest focus of my life. I kept thinking, why can't I have this at home?" That question became the seed of her startup.

From Capstone to Company

For her senior capstone, Aby and a teammate built a prototype EEG headset that could record brainwaves and distinguish attention from distraction. They called it the **capta EEG**. Unlike clinic systems tied to video games, their concept was simple: when attention drifted, the headset delivered a gentle vibration, a tap on the shoulder that nudged the wearer back to the task.

Launched officially in January 2023, the company—now called **Captavate**—won back-to-back ASU Venture Devils competitions, securing about $60,000 in grants and free legal support. Abby also partnered with **Dr. Silverman**, the very neurofeedback therapist who had treated her, bringing the idea full circle.

The Classic Hardware Trap

Early enthusiasm was intoxicating. Parents and students reacted urgently: I want this now. Abby and her team dove headfirst into building, but made a familiar mistake.

"We skipped validation and overbuilt," she says. "Months later we had a beautiful prototype that didn't solve the right problem."

A mentor reframed the challenge: If you had to launch in two weeks, what would you cut? Abby stripped the device to its essentials—accurate signal capture, reliable distraction detection, intuitive haptics—and rebuilt the roadmap. The shift was liberating.

What Parents Really Wanted

Through mockups, interviews, and app prototypes, Aby discovered that the headset alone wasn't enough. Parents wanted help **communicating** with their kids, not just monitoring them. They wanted progress updates without hovering, calmer conversations about homework, and less emotional stress in the home.

"Our best feature wasn't a waveform," Aby admits. "It was a calmer parent dashboard."

That insight turned the product into a two-part solution: the **capta EEG headset** paired with an app that supports both focus training and parent-child connection.

How It Works

Neurofeedback shows the brain what focus looks like, then rewards it. The capta EEG recognizes distraction patterns and responds with a barely-there buzz. Over time, the brain learns to sustain attention longer, much like building a muscle.

The device isn't meant to replace medication or therapy. Instead, it complements them. Some parents see it as a tool for days when meds aren't available or desirable; others hope it helps reduce reliance on prescriptions long term.

And while the first market is **students with ADHD**, Abby believes the potential is broader: teens, professionals, anyone who struggles with sustained attention.

Building in Arizona

Starting in Arizona gave Aby both community and challenges. Being local made it easier to recruit families for validation, but the startup ecosystem offered uneven guidance.

"As a young founder, I assumed others knew more than me," she says. "We wasted time on the wrong advice—filing patents too early, building cap tables before we had a company." What worked instead: founder peers, non-dilutive micro-grants, and been-there-done-that mentors. Aby hopes Arizona investors will back more **tiny, early checks** to help hardware startups clear the first hurdles."

That $40K grant changed everything for us," she says. "Without it, we'd be months behind."

The Mission That Drives Her

Entrepreneurship is a rollercoaster, with elation one day and despair the next. What keeps Abby going is a story from her family. Her grandmother in Ethiopia was the only health practitioner in her village, sterilizing tools in a boiling pot of water so she could stitch wounds and help neighbors.

"She made do with what she had," Aby says. "That's the spirit I want in this company. We're here to help people—period." For her, focus is more than productivity; it's dignity. "If a gentle cue can turn friction into progress—for a kid and a parent—that's the win we're building for."

THE QUIET LAYER MAKING HOMEOWNERSHIP EASIER

By Josue Romero, Managing Editor

At fourteen in India, **Aryash Dubey** thought he'd build the next Grand Theft Auto. He dove into code because games made America look impossibly cool—and because making things felt better than waiting for them. By sixteen, the dream had matured into something more practical: he assembled a small team and sold **"MVP-as-a-service"** to startups, acting as a fractional CTO for $5,000 a month. In a few scrappy quarters he cleared about **$200,000** in revenue, bought his ticket to the U.S., and learned a truth he still carries: build what people will actually use, not what they'll admire once.

That instinct would shape **Binsr Inspect**, the company he's building today.

The first swing: a home-maintenance concierge

Aryash's U.S. path ran through a summer role at a company called **Butler**, a home-maintenance service that took the hassleof plumbing, roofing, and small fixes off homeowners' plates for a monthly fee.

The value prop was clean; the usage wasn't. Homeowners were grateful—but **not frequent** users. "You can't build a sustainable product on rare behavior," he says. Thirty customers, a tidy app, and too few orders later, he shut the notebook and looked harder at the moments when homeowners did act.Those moments kept pointing back to **home inspection reports**.

A pattern emerged: new buyers would chip away at inspection findings over months and years. If maintenance didn't spark high-frequency behavior, maybe inspections could. Aryash wrote a tool in a week that parsed 120-page PDFs, extracted every line item, prioritized defects, and even generated instant repair estimates using insurer data they'd sourced.

Real estate agents loved it. Within three months, 600 agents signed up. Problem solved? Not quite.

Agents see inspection reports **once a month**—not enough to steer product at the speed he wanted. He had traction, but not the **high-frequency user** who could act like an embedded product manager, pushing him toward the right features every day.

The Decisive Pivot

"Who touches inspections constantly?" he asked. The answer was obvious: **home** inspectors. They live inside their software, sometimes **30 reports a week**, and they're creatures of habit. Break their workflow and you'll be uninstalled by Tuesday. Augment it—**quietly**—and they'll bring you everywhere.

Aryash shadowed inspections with a head-mounted camera, documenting each step. The job wasn't exotic: notes, photos, checklists, structured observations, the same actions over and over. Perfect for **assistive automation**—as long as the AI didn't announce itself with a neon sign.

"The best AI is the kind you don't notice," he says. "If a simple algorithm works, use it. Save AI for what only AI can do."

Binsr Inspect became an **AI-powered inspection platform** that plugs into the tools inspectors already use. It speeds the capture, classification, and drafting of reports; fits existing muscle memory; and quietly suggests what to include next. The goal is crisp: many inspectors finish **two** inspections per day; Binsr Inspect wants to help them confidently add a **third**—without burnout or sloppiness.

Along the way, the team built relationships where it counts. Advisors include one of **Arizona's largest inspection operators**. And on the downstream repair side, Binsr Inspect partnered with **Lessen** (an Arizona-based property services platform) to turn findings into vetted, fairly priced work—so the report isn't the end of the story; it's the beginning of **action**.

Why The Inspection is The Fulcrum

Ask ten homeowners what's wrong with their house and you'll get shrugs. Ask their **inspection report** and you get a to-do list, each item dated, tagged, and risk-weighted. In Arizona, that list even has a formal name: **BINSR**—the Buyer Inspection Notice and Seller Response form that governs repair credits. **Binsr Inspect's** name is a tribute to that reality: the inspection is the moment of truth.

By embedding at that moment, Binsr Inspect gains what most consumer apps pay dearly to acquire: **relevance and permission**. The vision is a single place where the inspection lives on—turning defects into scheduled work, reminders into completed tasks, and historical data into **predictive maintenance** over the life of the home. (A typical U.S. homeowner spends around **$10,000/year** on upkeep; even small efficiencies compound.)

The company's near-term focus remains disciplined: win the inspector. Deliver speed, accuracy, and an invisible assist that respects how they already work. Make reports better. Make days shorter. Make revenue higher.

Arizona as a proving ground

If you're going to build in real estate, **Arizona** is a gift. The state hums with proptech, large operators, and practical weather—fewer "snowed-in" cancellations, more days on roofs. Partners are across town, not across the country. "If something breaks, we can drive to the office and fix it together," Aryash says. The ecosystem's density helps with **pilots**, **advisors**, and the all-important **first dozen customers who tell you the truth**.

He's candid about the bumps, too. Not every pivot felt heroic in the moment. Some days the right call was to **shut it down**—and then choose not to, because the insight was getting sharper: inspections are the access point to the homeowner, the repair dollar, and the long-term data that makes all of it smarter.

The company you use without noticing

Aryash doesn't need Binsr Inspect to be famous. He invokes **Tetra Pak**, the behind-the-scenes packaging giant most consumers never name.

"We want to be the layer that makes homeownership easier," he says. "You'll touch us at key points—inspection, repair, renewal—but mostly we'll just be there, making the process sane."

That's the product philosophy in a line: make the hard parts disappear. If AI helps, great. If an old-fashioned algorithm is cleaner, even better. If a workflow tweak beats both, ship the tweak.

What matters is the outcome: inspectors finishing one more high-quality job a day; agents closing smoother concessions; homeowners acting on what the report revealed—without spending nights in contractor hell.

Binsr Inspect isn't selling a story about homes. It's building the **infrastructure** beneath how homes get cared for.

MEET OUR AMBASSADORS

Ville Houttu
Privv

Ryan Moorehouse
Ruck

Jason Beck
Kraus- Anderson

Joshua Hanson
ImageAid

Kyle Desousa
Koko Ni

Jasmine Bhatti
Navi Nurses

Derek Lundsten
LifeGuides

Anisia Corona
DxTx

David Schneider
Dane Health, Inc

MEET OUR AMBASSADORS

Heather Tugaoen

Watergenics

Jordan Fourcher

Cryo X CO

Jay Foster

Carbon Utility

Joseph Phillips

AIAEC International

Leah Walczak

Gemhaus

Dirk Beth

Accenture

Dustin DeFrates

Geopoint Data

Bronson Hixon

Rhome

Marloes de Goeijen

NBSO Arizona

MEET OUR AMBASSADORS

Bill Swartz

AIVN

Peter Grob

Silicon Valley Bank

Christopher Fox

Vensure

Mahesh Vinayagam

qBotica Inc

Kelvin Tran

Solisa AI

Rob Anderson

Grape ID

Jonathon Chambless

LV8RLABS

Blake Woodrow

Thin Air Nav

Debin Ray

Desert Rotor

MEET OUR AMBASSADORS

Emini Offutt

Grangou App

Dhanush Vardhan

Devize

Chad Bellin

Disca

Ryley Randall

Devize

Tyler Leber

Coconut

Luke Aschenbrand

Emblem

Dirk Beth

Accenture

MEET OUR TEAM

Get to know the builders, storytellers, and connectors powering the Silicon Oasis movement behind the scenes.

Kyle Macdonald
Editor-in-Chief

Josue Romero
Managing Editor

Shray Patel
Venture Research Analyst

Makaiah Gorhan
Venture Research Analyst

Josh Hanson
Venture Research Analyst

Sean Bair
Board Member

> “We’re not just building stories — we’re building the community behind them. Every event, every article, every founder feature is powered by people who believe in Arizona’s future.”

Pillar Partners

AI VENTURE NETWORK

Driving Arizona's AI future by connecting founders to mentorship, talent, and capital.

PHX FWD

Founder-led software community uniting Arizona builders through events, peer groups, and startup-focused resources.

AZ PROPTECH COLLECTIVE

A community uniting real estate, construction, and tech innovators to shape Arizona's built environment.

MAC MISSION ACCELERATION CENTER SOUTHWEST

Accelerating defense and aerospace innovation through founder support, workforce development, and mission-aligned industry partnerships.

AZ CLEANTECH

Uniting Arizona's climate innovators across energy, water, and mobility to accelerate clean tech collaboration.

PHOENIX Rising FINTECH

A community of fintech and payments professionals driving innovation while supporting each other's growth.

How To Reach Us

https: thesiliconoasis.org

info@thesiliconoasis.org

4750 S 44th Pl, Suite 120, Phoenix

SILICON OASIS