

Ready to build an **AI project** around **biology & medicine**?



From **genomics and disease prediction** to **medical imaging and drug discovery**, AI is changing how scientists research, doctors diagnose, and patients are treated.

With expert mentors from global tech companies, students build real AI tools at the intersection of **biology, medicine, health, and technology**.



Why Delta AI?



OUTCOMES





- ➔ A standout project for your college application**
Admissions officers look for initiative and depth. An AI project in biology or medicine shows both.
- ➔ A meaningful academic story tied to your passion**
Your project becomes something you can write about, talk about in interviews, and be proud to present.
- ➔ Real skills that set you apart**
Learn the same AI and data skills behind careers in biotech, research, medicine, and engineering.
- ➔ Inspired by real innovation in healthcare and biotech**
Work on ideas used by real researchers and companies, adapted for your level.
- ➔ A recommendation letter that carries weight**
Your mentor writes a detailed letter speaking to your skills, growth, and work ethic.

STRUCTURE

AI Intensive 5-week cohort program

AI Immersive 25 hours of 1:1 mentorship

Students receive:

-  **Hands-on learning** with step-by-step guidance
-  A curriculum **built around your level**
-  A mentor **recommendation letter**
-  A **project white paper** documenting your work

Students work with mentors from leading tech companies driving the AI revolution.



Who Is This Built For?



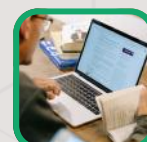
Pre-med or bio-curious students



Students aiming for top college applications



Both beginner and advanced learners



Students looking for 1:1 or cohort mentorship

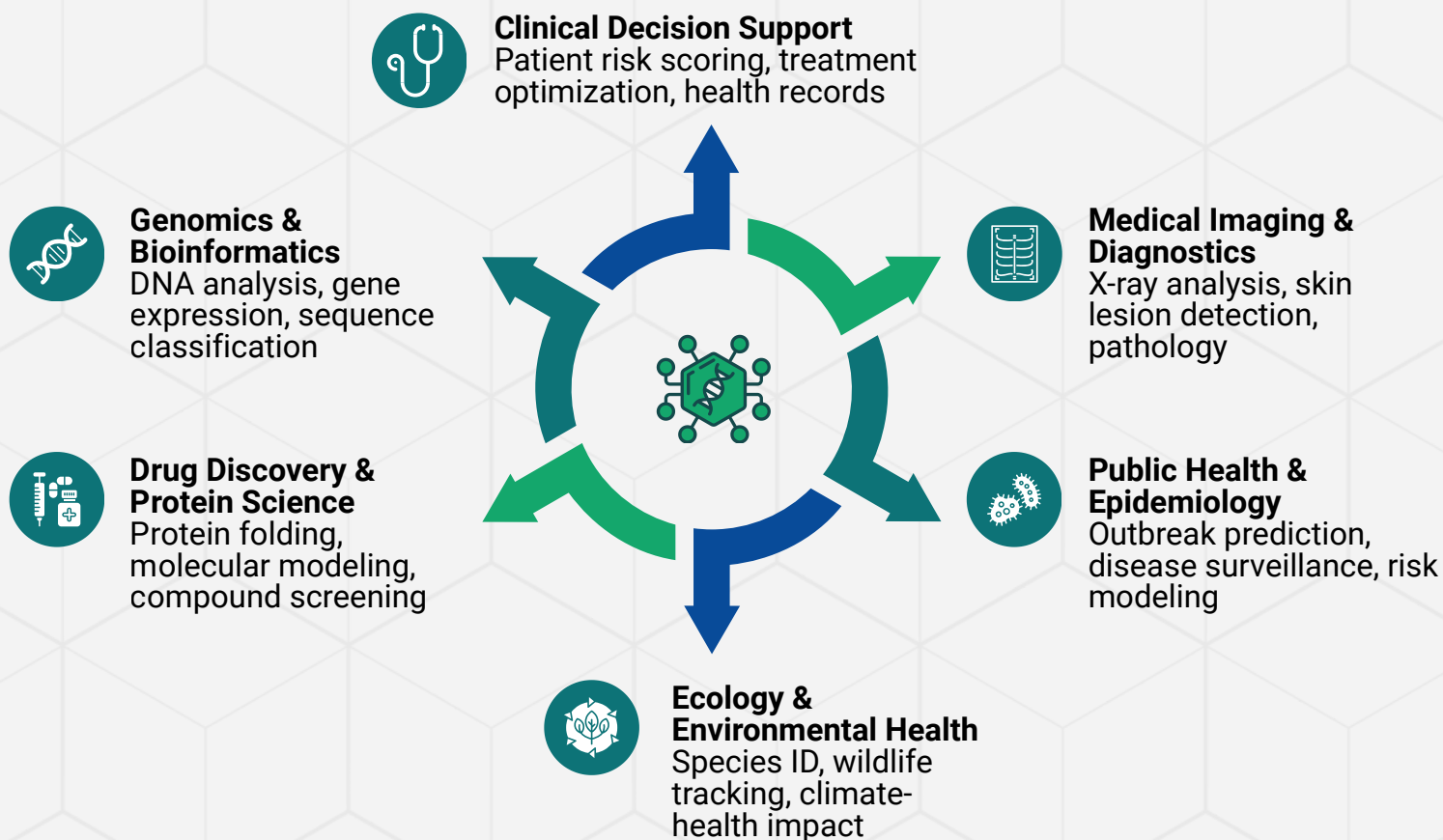
Applications of AI in Biology & Medicine



AI is transforming every aspect of **biology** and **medicine**, from the research lab to the clinic.



The future of medicine and biology runs on AI. Don't just learn about it. **Build something with it.**

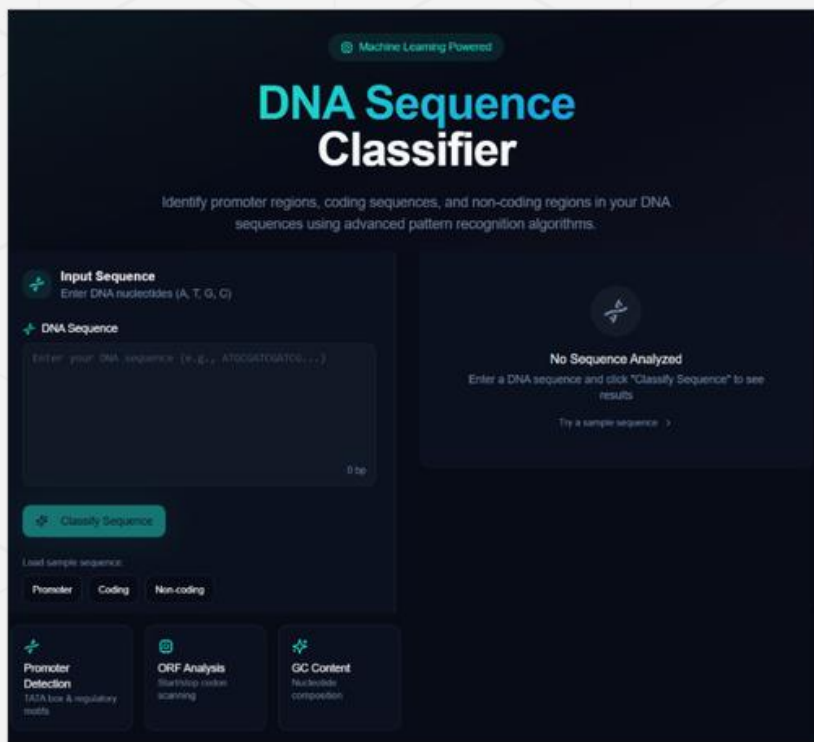


See portfolio-ready AI x Biology & Medicine projects students build with Delta AI



DNA Sequence Classifier

A machine learning tool that reads DNA sequences and classifies them by function. The same kind of analysis used in real genetics labs and biotech research.



Skills demonstrated



- Genomic data handling
- ML classification
- Bioinformatics fundamentals
- Data cleaning & prep

Real-world outcome



Students build the same type of DNA analysis tools used in genetics labs and biotech companies. A strong project for any pre-med or biology-focused application.

Built with



- Python (scikit-learn)
- Genomic databases (NCBI)
- Data visualization

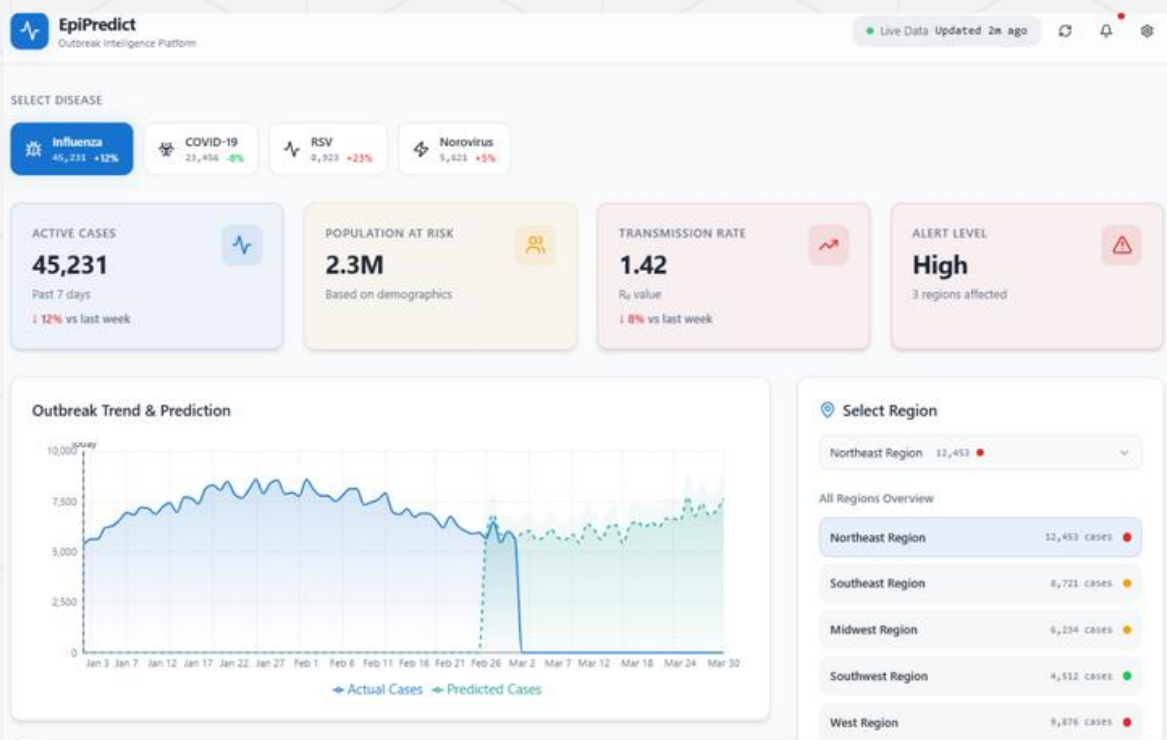
Your deliverable



Portfolio ready **live project**, **white paper**, and **public GitHub repo**

Epidemic **Outbreak Predictor**

A forecasting dashboard that predicts disease outbreak patterns using real public health data. The same approach used by the WHO and CDC to respond to epidemics.



Skills demonstrated



- Time-series forecasting
- Public health data analysis
- Interactive dashboarding
- Critical thinking with data




Real-world outcome



Students build forecasting tools like those used by global health organizations. Shows admissions officers you can tackle real-world problems with data.

Built with



-  Python (scikit-learn)
-  CDC / WHO datasets
-  Plotly dashboards

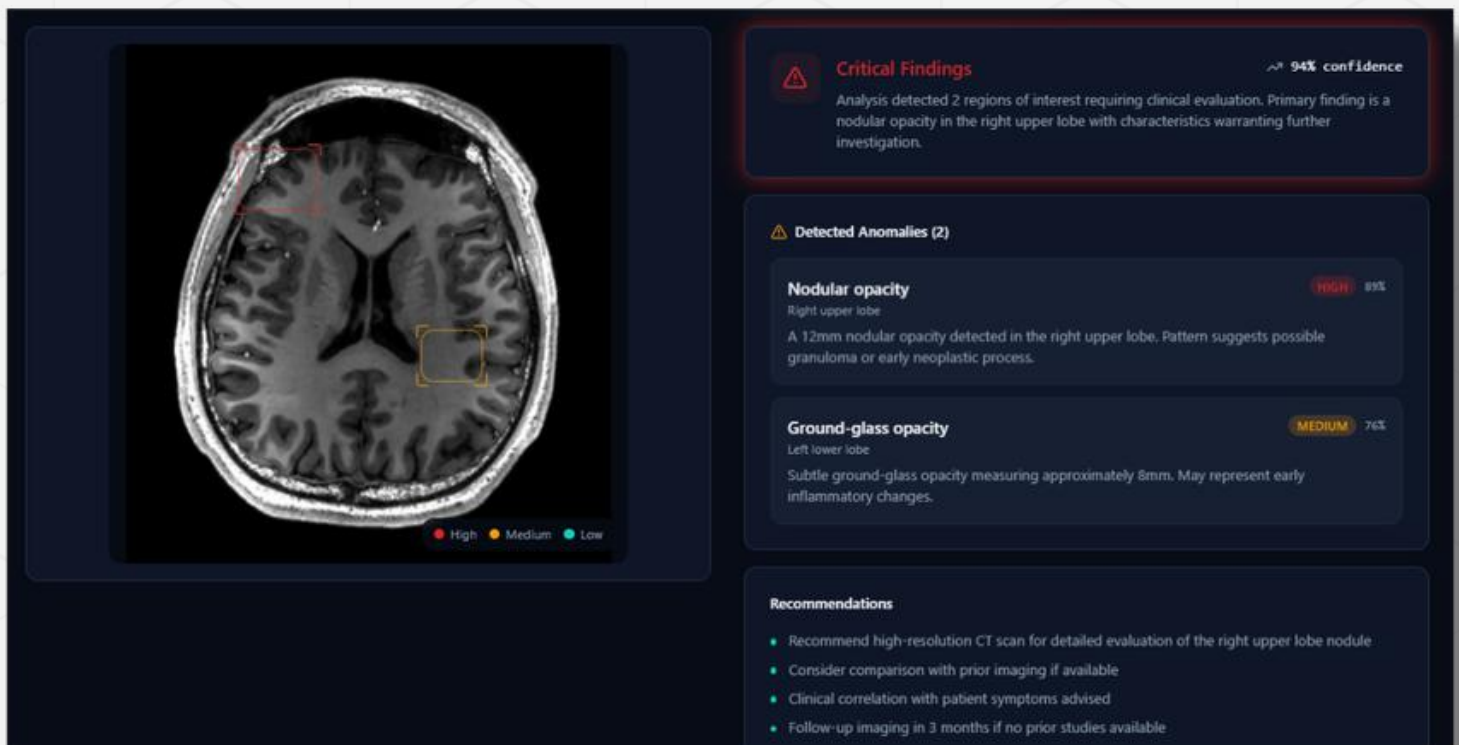
Your deliverable



Portfolio ready **live project**, **white paper**, and **public GitHub repo**

Medical Image **Diagnosis Assistant**

A computer vision system that detects anomalies in medical images like X-rays and skin scans, with explainability features that show why the AI made its prediction.



Critical Findings 94% confidence

Analysis detected 2 regions of interest requiring clinical evaluation. Primary finding is a nodular opacity in the right upper lobe with characteristics warranting further investigation.

Detected Anomalies (2)

Nodular opacity HIGH 89%
Right upper lobe
A 12mm nodular opacity detected in the right upper lobe. Pattern suggests possible granuloma or early neoplastic process.

Ground-glass opacity MEDIUM 76%
Left lower lobe
Subtle ground-glass opacity measuring approximately 8mm. May represent early inflammatory changes.

Recommendations

- Recommend high-resolution CT scan for detailed evaluation of the right upper lobe nodule
- Consider comparison with prior imaging if available
- Clinical correlation with patient symptoms advised
- Follow-up imaging in 3 months if no prior studies available




Skills demonstrated

- Deep learning (CNNs)
- Medical image analysis
- Explainable AI (Grad-CAM)
- Responsible AI design

Real-world outcome

Students build diagnostic AI similar to tools used in hospitals and health-tech startups. A powerful "I built AI that helps detect disease" story for applications.

Built with

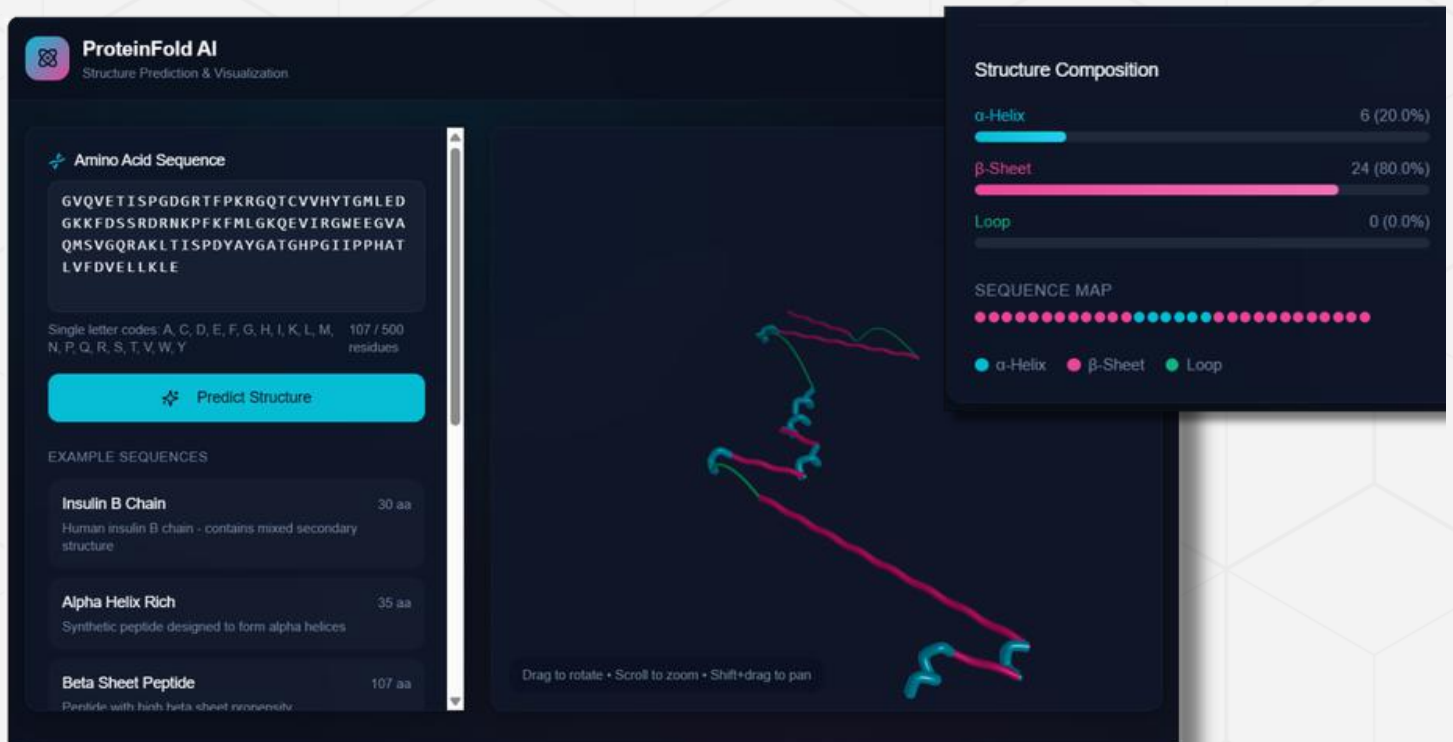
-  Python (TensorFlow/PyTorch)
-  Medical image datasets
-  Attention map visualization

Your deliverable

Portfolio ready **live project**, **white paper**, and **public GitHub repo**

Protein Structure Prediction Visualizer

An interactive 3D tool that predicts how proteins fold and visualizes the results. Inspired by AlphaFold, the Nobel Prize-winning AI research.



Skills demonstrated



- Protein science + AI
- 3D data visualization
- Bioinformatics databases
- Scientific reasoning




Real-world outcome



Students work on the same problem that won the 2024 Nobel Prize in Chemistry. One of the strongest projects for showing scientific depth on a college application.

Built with



-  Python (ESMFold models)
-  Py3Dmol / PyMOL
-  UniProt / PDB databases

Your deliverable



Portfolio ready **live project**, **white paper**, and **public GitHub repo**

Program Structure: AI Immersive (1:1)



AI Immersive offers **25 hours of 1:1 mentorship** from an industry expert. Most students complete it in **10-12 weeks**.

A Learning Experience Built Around You

- Learn at your own pace with flexible scheduling.
- All ages welcome - middle school through adult learners.
- Every skill level - from your first line of code to advanced projects.

THE JOURNEY



ONBOARDING & MENTOR MATCHING

We pair you with a mentor who aligns with your interests, timezone, and project goals. The kickoff includes orientation and an initial project discussion and brainstorming!



PERSONALIZED GOAL SETTING & CURRICULUM

Your mentor defines clear learning outcomes, maps weekly milestones, and builds a personalized curriculum tailored to your experience level.



FOUNDATIONAL LEARNING

Learn essential AI concepts, tools, and techniques through hands-on, mentor-guided sessions covering Python, Data Handling, and ML Model basics.



PROJECT BUILD

Apply your skills to develop a complete AI project with technical guidance, troubleshooting support, and iterative improvements from your mentor.



PRESENTATION & EXPERT REVIEW

Present your completed project for expert evaluation and receive detailed feedback with a roadmap for next steps.



REFERRAL LETTER & NETWORKING SUPPORT

Students who complete the program and complete the project receive a mentor-endorsed letter for college or internship applications.

Support Beyond Sessions

- ✉ After-hours email and chat support from mentors.
- 📱 Messaging, Scheduling Sessions via CrimsonApp.
- ⏸ Ability to Pause program during busy times (exam season etc).
- 🏠 Be part of Delta AI Discord Community.

Program Structure: AI Intensive (Cohort)



Five weekends. Two real AI projects.
One portfolio that sets you apart.

PROGRAM FORMAT

- 14 hours of live, instructor-led group learning
- 2 hours of exclusive 1:1 mentorship
- Unlimited Teaching Assistant support via Discord
- Demo Day showcase to close the program

THE JOURNEY



WEEK 1 | SET UP + SHIP YOUR FIRST AI APP

Set up Python and your development environment. Build and customize an AI chatbot. Publish your first project on GitHub.



WEEK 2 | EXPLORE AI + DEFINE YOUR PROJECT

Learn how AI processes language and images. Enhance your chatbot with new AI capabilities. Choose your interdisciplinary project topic.



WEEK 3 | REFINE + PREPARE

Improve your project with mentor feedback. Learn to present technical work clearly. Begin your 1:1 mentorship sessions.



WEEK 4 | BUILD YOUR AI PROJECT






Develop an AI tool in a field you care about. Work with mentors to build a functional prototype. Use real data and practical tools.







WEEK 5 | LAUNCH + DEMO DAY

Deploy your project as a live website. Finalize deliverables with mentor support. Present your work at Demo Day.

WHAT YOU'LL WALK AWAY WITH

-  Two AI projects aligned to your interests
-  Live website or shareable demo links
-  Public GitHub repos
-  Slide deck, demo video, and short white paper
-  Certificate of completion and mentor recommendation letter

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Ready to Build Your Own **AI x Biology & Medicine Project?**



REGISTER YOUR INTEREST

Hayato M.

Delta AI Immersive Alumni, Project: Neural Fold

"I never thought I could create a project that **integrates my culture and AI**. This experience has opened new doors for me."



Aysel B.

Delta AI Intensive Alumni, Project: Nananet Chatbot

"The Delta AI program was an **incredible experience fast-paced, engaging, and perfectly structured**. I loved how each session built on the previous one, **making even complex AI concepts feel achievable.**"



Learn from the best!



Not into biology?
Explore AI projects in other fields too.

Business | Finance

Music | Fine Arts

Mechanical Engineering

Environment | Sustainability

Law | Public Policy

And Many More!!

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Outcome: A working AI chatbot ready to demo.



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Learn how AI processes language and images. Enhance your chatbot with new AI capabilities. Choose your interdisciplinary project topic.

Outcome: A clear project plan built around a real-world problem.



WEEK 3 | REFINE + PREPARE

Improve your project with mentor feedback. Learn to present technical work clearly. Begin your 1:1 mentorship sessions.

Outcome: A polished, presentation-ready project.



WEEK 4 | BUILD YOUR AI PROJECT

Develop an AI tool in a field you care about. Work with mentors to build a functional prototype. Use real data and practical tools.

Outcome: A working AI prototype.



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- All ages welcome - middle school through adult learners.
- Every skill level - from your first line of code to advanced projects.

AI Intensive (Cohort)

- 5-week structured program
- Small group learning
- Great starting point for beginners
- Set weekly schedule with peers

AI Immersive (1:1)

- 25 hours of 1:1 mentorship
- Fully personalized curriculum
- Flexible scheduling
- Typically 10-12 weeks

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