

# Ready to build an **AI project** around your **sport**?



From performance analytics and injury risk reduction to real time, personalized training plans, AI is already shaping how teams operate across the elite leagues, changing how athletes train, recover, and compete.



With expert mentors, students can build almost anything at the intersection of sports, performance, health, strategy, and technology.

Students can start with or without coding experience. We meet them where they are and help them grow steadily and confidently.

## Why Delta AI?



### OUTCOMES

- ➔ Real world, career ready skills**  
These are the foundations behind modern roles in engineering, analytics, product, research, and business.
- ➔ A meaningful academic story connected to your passion**  
The work becomes a thoughtful academic endeavor that students can be proud to present.
- ➔ Universities and employers value passion plus impact**  
Strong projects show initiative, curiosity, and follow through.
- ➔ Inspired by real innovation in commercial sports**  
Students get to explore similar ideas in a student friendly, age appropriate way, building both confidence and credibility.
- ➔ Future pathways**  
AI powers modern sports, from analytics to wearables, and opens paths into engineering, computer science, design, and entrepreneurship.

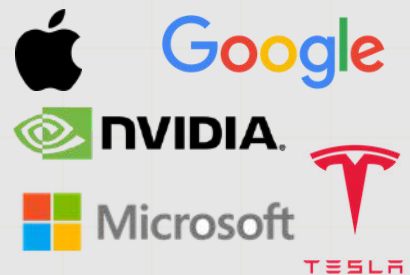
**AI Intensive** 5-week cohort program

**AI Immersive** 25 hours of 1:1 mentorship

Students receive:

- Hands on learning and building with clear guidance at each step.
- A custom curriculum that starts from the student's level.
- A recommendation letter from their mentor.
- A project white paper documenting the problem, approach, results, and learnings.

Students work 1:1 with mentors who have **experience at leading technology companies** leading the AI revolution.



## Who Is This Built For?



Students looking for 1:1 mentorship with flexible scheduling



Athletes aiming for standout college applications



Both beginner & advanced learners



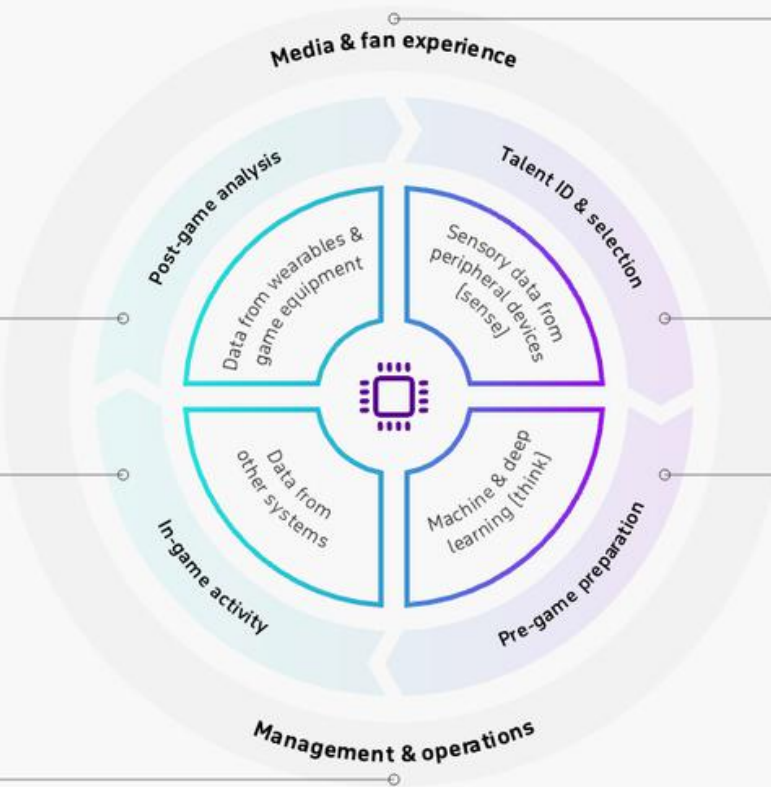
Athletes who want to add AI to their sport

# Applications of AI in Sports



## AI's impact on **Sports**

AI is transforming every aspect of sports, from **the competition and game play** to the **show and entertainment business**.



- Fan relationship management
- eSports
- Sports betting
- News & content
- Media rights
- Factory sports

- Talent identification
- Talent selection
- Training & coaching
  - Nutrition
  - Physical
  - Biomechanics (skill/ technique)
  - Mental
- Injury management
- Strategic & tactical game planning
- Team selection

- Analysis & feedback
- Recovery
- Injury management
- Umpiring
- Specialist coaching

- Competition management
- Sponsorship
- Club & team management
- Merchandising
- Venues, events & ticketing
- Payments

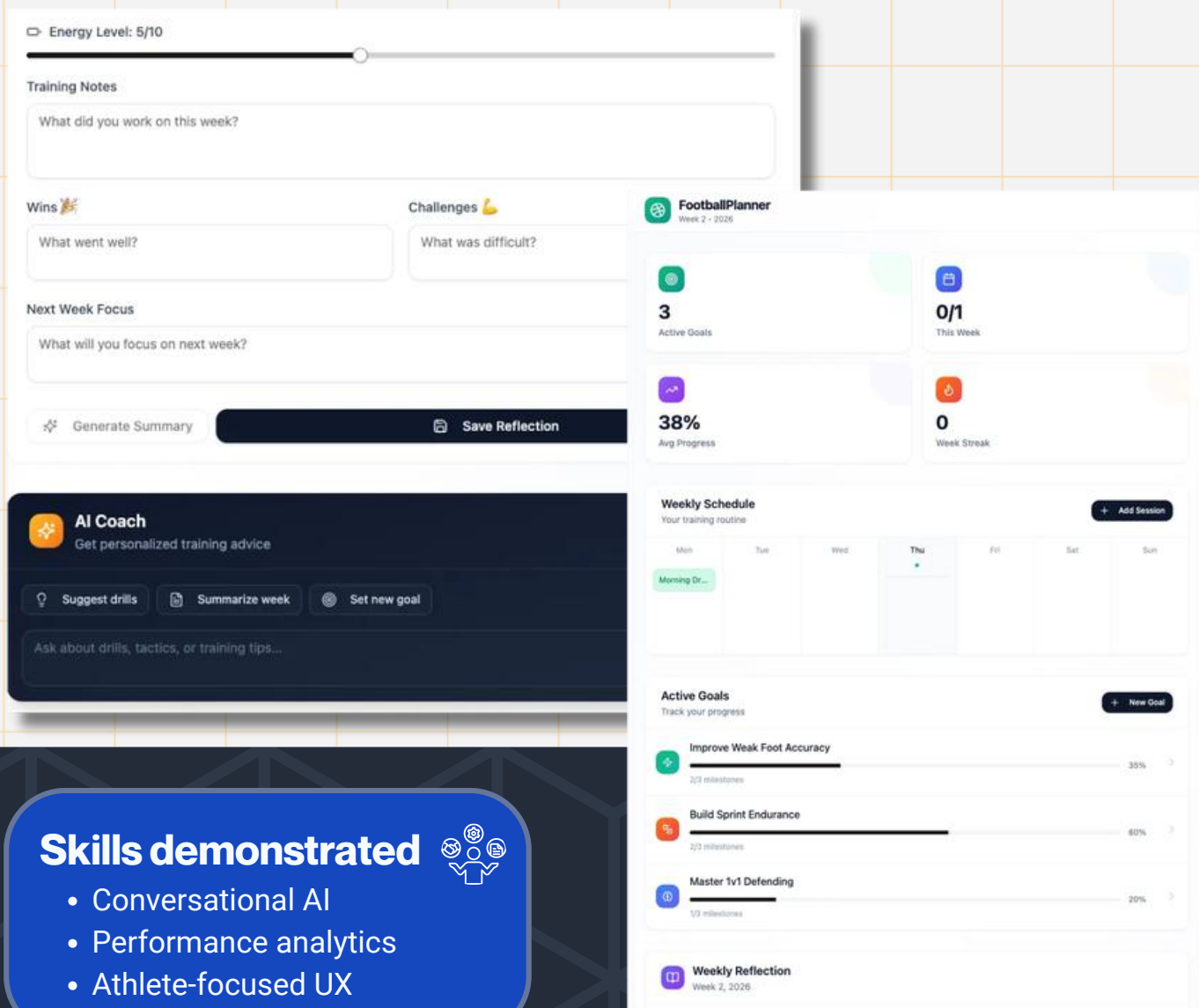


See portfolio ready AI x Athletics projects students build with Delta AI



## Soccer **Coach Assistant**

A **personalized training companion** that transforms weekly practice goals into structured routines with automatic progress tracking and intelligent reflection.







The image displays three overlapping screenshots of the Soccer Coach Assistant application. The top-left screenshot shows a 'Training Notes' form with an 'Energy Level: 5/10' slider, a text input for 'What did you work on this week?', and sections for 'Wins' and 'Challenges'. The bottom-left screenshot features an 'AI Coach' section with buttons for 'Suggest drills', 'Summarize week', and 'Set new goal', and a text input for asking questions. The rightmost screenshot is a dashboard titled 'FootballPlanner' for 'Week 2 - 2026', showing metrics for 'Active Goals' (3), 'This Week' (0/1), 'Avg Progress' (38%), and 'Week Streak' (0). It includes a 'Weekly Schedule' table, 'Active Goals' with progress bars for 'Improve Weak Foot Accuracy' (35%), 'Build Sprint Endurance' (80%), and 'Master 1v1 Defending' (20%), and a 'Weekly Reflection' section.

### Skills demonstrated

- Conversational AI
- Performance analytics
- Athlete-focused UX

### Built with

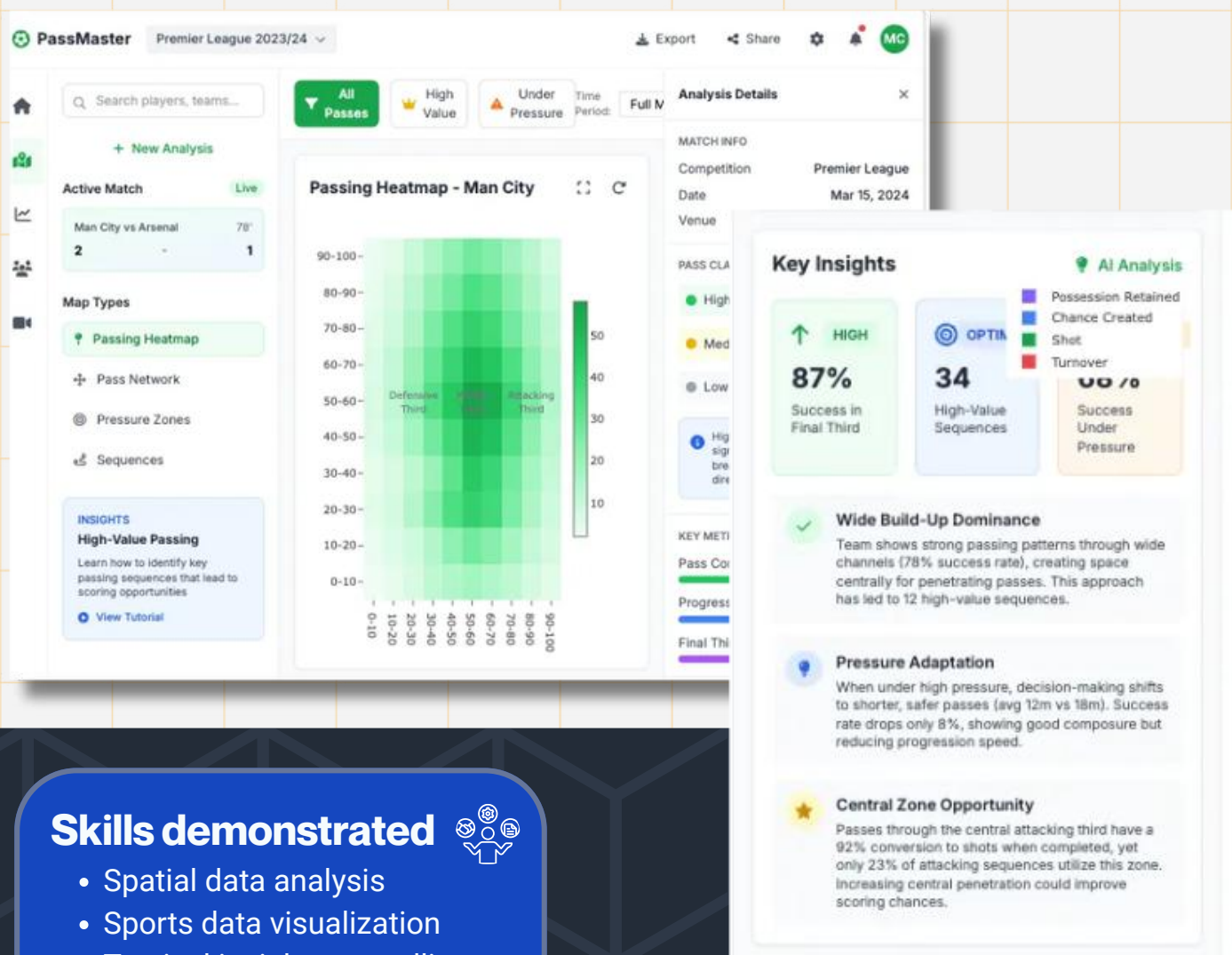
-  Python
-  LLM APIs (OpenAI or Anthropic)
-  Data dashboards
-  Natural language summarization

### Real-world outcome

Students build a tool athletes could actually use to train consistently and measure growth.

## Passing Map Analytics

An **interactive visualization platform** that maps every pass on the field, revealing spatial patterns, decision-making tendencies, and play sequences that lead to scoring opportunities.



### Skills demonstrated

- Spatial data analysis
- Sports data visualization
- Tactical insight storytelling

### Built with

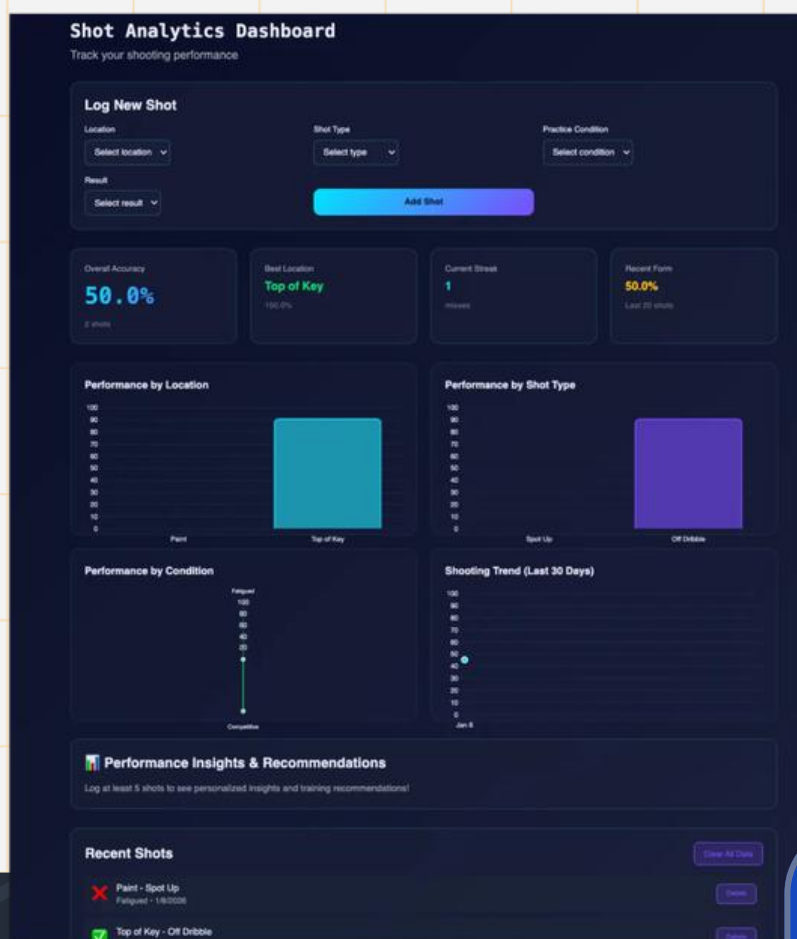
- Python (pandas, numpy)
- Plotly or Matplotlib
- Scikit-learn for optional play classification

### Real-world outcome

Students experience how pro teams use spatial analytics to optimize formations and decision-making.

## Shot Insights Dashboard




A **comprehensive shooting performance analyzer** that tracks shot accuracy by court location, shot type, and practice conditions, then generates personalized training recommendations based on detected patterns.



### Real-world outcome

Students build the same type of shot analytics tools used by NBA teams to optimize player development, learning valuable data science skills while improving their own game.

### Built with

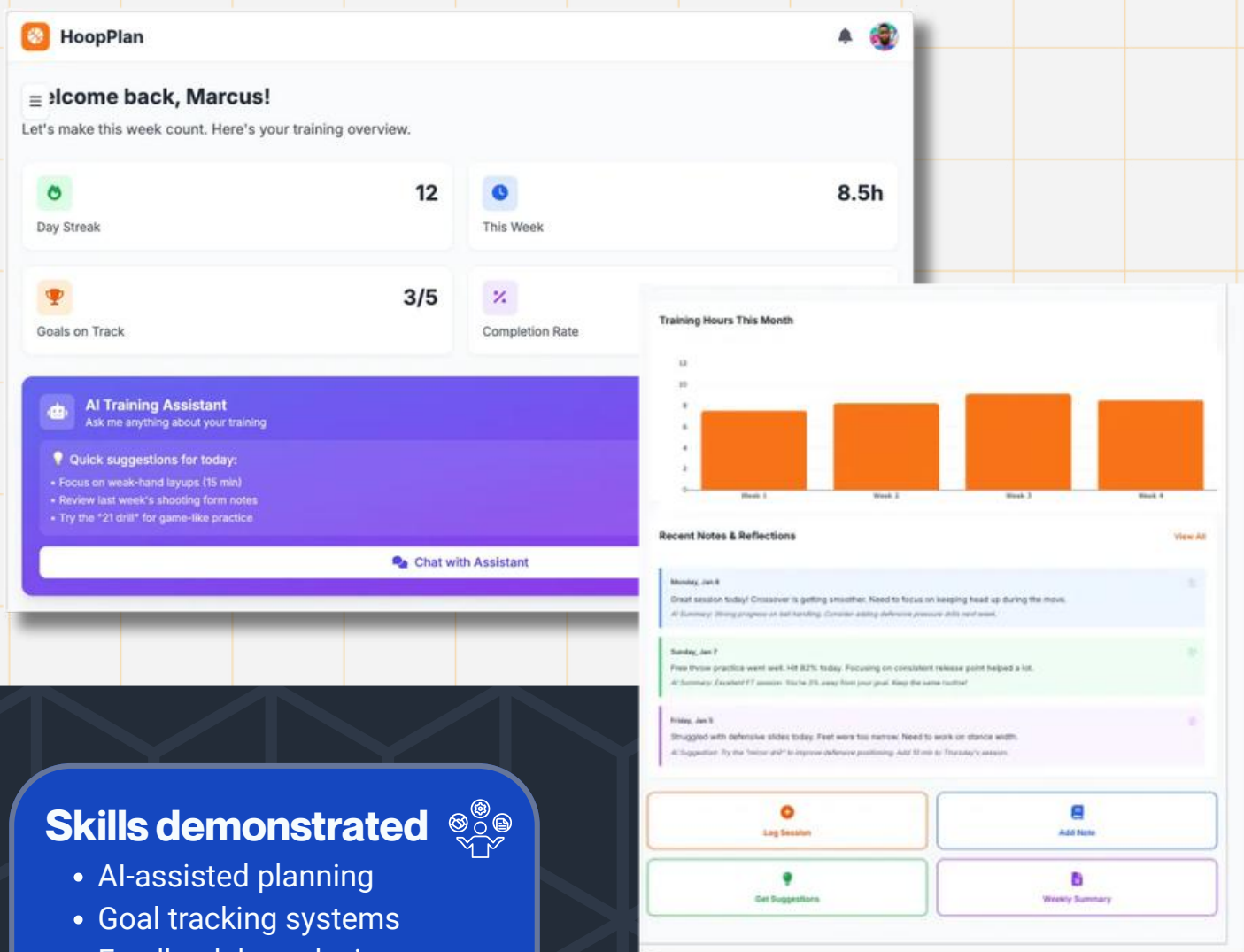
-  Python data libraries
-  Clustering algorithms
-  Visualization tools

### Skills demonstrated

- Statistical analysis
- Pattern detection
- Insight-driven reporting

## Drill **Planner** & Progress **Tracker**

An **intelligent training organizer** that converts season-long goals into weekly practice plans, tracks drill completion, and uses AI to suggest progressively challenging exercises based on performance history.



The screenshot shows the HoopPlan application interface. At the top, it says "Welcome back, Marcus!" and "Let's make this week count. Here's your training overview." Below this are four key metrics: Day Streak (12), This Week (8.5h), Goals on Track (3/5), and Completion Rate. There is an "AI Training Assistant" section with quick suggestions for today: "Focus on weak-hand layups (15 min)", "Review last week's shooting form notes", and "Try the '21 drill' for game-like practice". A "Chat with Assistant" button is also present. To the right, there is a "Training Hours This Month" bar chart showing four weeks of training hours. Below that is a "Recent Notes & Reflections" section with three entries: Monday, Jan 6; Sunday, Jan 7; and Friday, Jan 5. At the bottom, there are four buttons: "Log Session", "Add Note", "Get Suggestions", and "Weekly Summary".




### Skills demonstrated



- AI-assisted planning
- Goal tracking systems
- Feedback loop design

### Built with



-  Python
-  LLM recommendations
-  Structured data storage

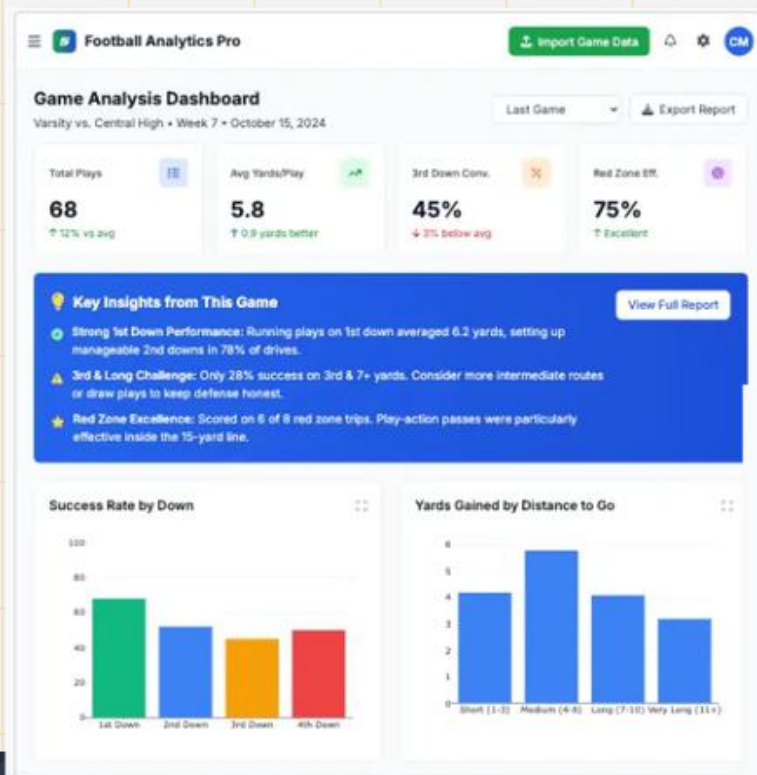
### Real-world outcome



Students create planning systems used in elite training and transferable to academics and work.

## Play Insights Analyzer

A **football strategy tool** that processes play-by-play data to uncover winning patterns based on down, distance, field position, and game context, revealing which play types succeed in different situations.



### Skills demonstrated



- Predictive analysis
- Context-based decision modeling
- Data interpretation for coaches

### Built with



- Python & pandas
- Basic ML models
- Game situation visualizations

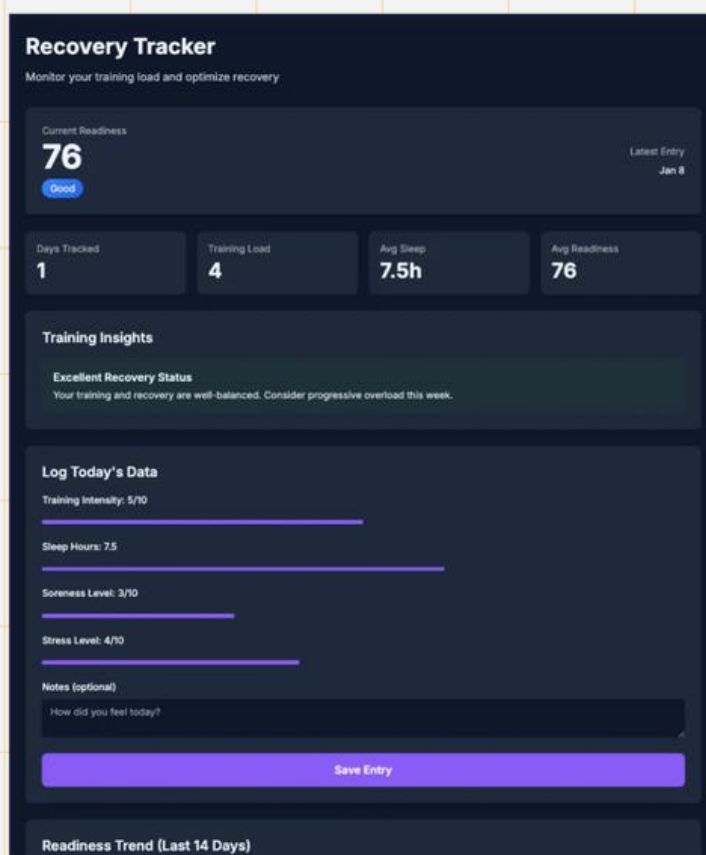
### Real-world outcome



Students learn how NFL teams use data to gain competitive advantages on the field.

## Recovery **Planner** & Readiness **Tracker**




A **holistic recovery monitoring system** that combines training load, sleep quality, muscle soreness, and mental readiness into a personalized recovery score, helping athletes avoid overtraining and optimize performance timing.



### Real-world outcome

Students build athlete wellness tools similar to those used by Olympic training centers and professional sports teams, learning how data-driven recovery strategies prevent injuries and extend athletic careers.

### Built with

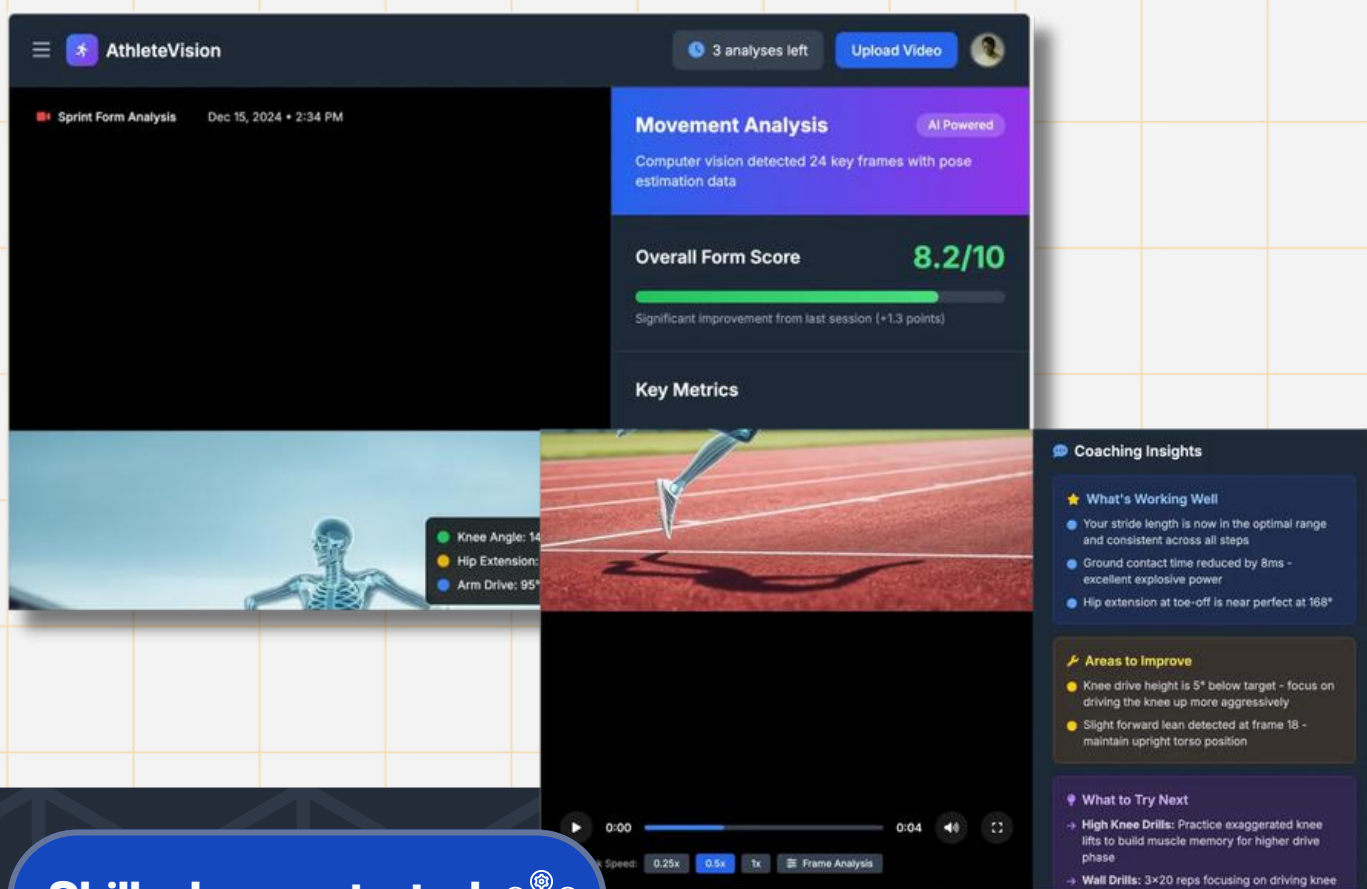
-  Python
-  Optional LLM insights
-  Statistical scoring models

### Skills demonstrated

- Health data modeling
- Time-series analysis
- Responsible AI design

## Form **Feedback Analyzer**

A **computer vision system** that analyzes practice video clips to evaluate movement mechanics, measure key angles and timing, and provide specific coaching feedback on technique improvement areas.



### Skills demonstrated

- Computer vision
- Biomechanics analysis
- Visual feedback design



### Built with

- Python with OpenCV
- MediaPipe for Pose estimation tools
- Geometry-based analysis
- Matplotlib



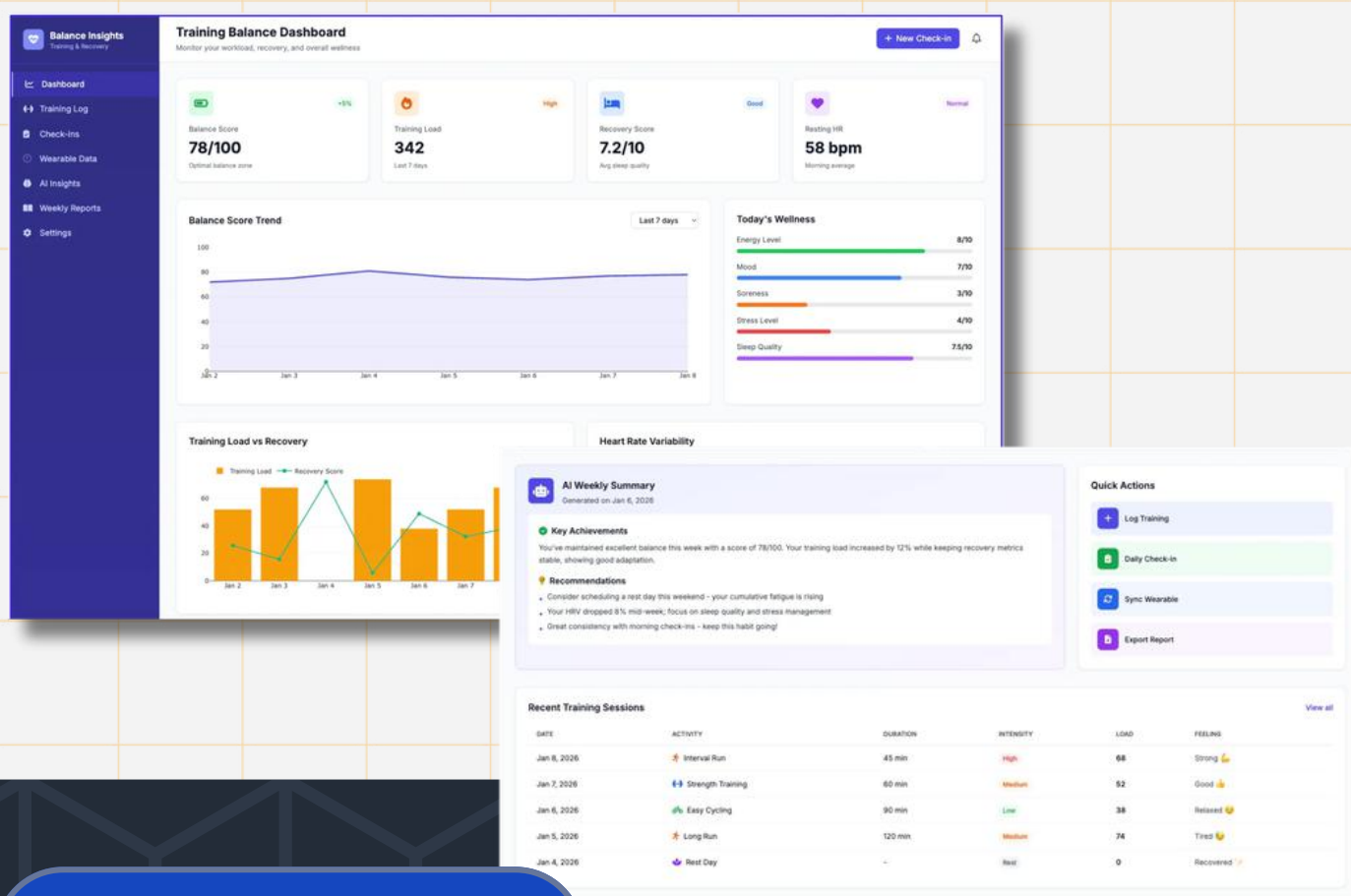
### Real-world outcome

Students explore how AI-driven motion analysis improves performance in sports and beyond.



## Balance **Insights** & Workload **Monitor**

An **integrated wellness platform** that combines subjective training notes, wearable device data, and daily check-ins to create a comprehensive view of training balance, recommending adjustments when patterns suggest overload risk.



### Skills demonstrated

- Multi-source data integration
- Workload modeling
- Habit-focused system design

### Built with

- Python
- LLM reflections
- Wearable data APIs

### Real-world outcome

Students create athlete monitoring systems used by collegiate and professional teams.

# Program Structure: Delta AI Immersive (1:1)



AI Immersive offers **25 hours of 1:1 mentorship** from an industry expert and 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.
- Custom learning path - tailored to your unique goals.



## 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.



## ADVANCED LEARNING - EXECUTION PHASE

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



## FINAL PRESENTATION, EXPERT REVIEW, AND FUTURE GUIDANCE

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



## REFERRAL LETTER & APPLICATION 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 with clean READMEs
-  Slide deck, demo video, and short white paper
-  Certificate of completion and mentor recommendation letter

## 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.



# Ready to Build Your Own **AI x Athletics Project?**



**REGISTER YOUR INTEREST**

**Hayato Masuda -**

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." ★★★★★



**Learn from the Best!!**



**Build your own AI x Project**  
in other popular industries...

Business | Finance

Music | Fine Arts

Mechanical Engineering

Environment | Sustainability

Law | Public Policy

**And Many More!!**