# Engineering The Edge:

Developing an Al-Driven
Training Copilot for Athletes



### **Meet The Team**





Blair Davis Scrum Master Yale University



Will
Planning Phase Owner
Dartmouth College



Bailey
Monitoring Phase Owner
Columbia University



Gianna Adams
Planning Phase Owner
Carnegie Mellon University



Ria Chhina Execution Phase Owner University of Virginia



Sofia Calabretta Control Phase Owner Georgetown University

### Agenda



- MVP Framework
- Competitor Research
- Target Persona
- Visual Mockup
- Go-To Market Strategy

- KPI Framework
- User Journey Map
- Risk Assessment Matrix









### **MVP Framework**



### **Target User**

Who will be using this product?

#### Audience:

- Professional Athletes
- Amateur Sports Enthusiasts
- Fitness-Conscious Individuals

#### **Specific Problems**

What issues do current audiences face with their training strategies?

#### **Problems:**

- Suboptimal Progress
- Lack of Real-Time Refinement
- Lack of Motivation

### Solution

**Microsoft Sports Productivity Copilot** 

#### **Pain Points**

Where do current solutions fail in optimally helping athletes?

### **Key Aspects:**

- Variability in Athletes' Day-To-Day States
- Disconnected Data Tracking
- Lack of Real-Time Feedback
- Difficult to Optimize Recovery

### **Locating the Problem**

Why exactly do current training solutions fail?

#### **Root Causes:**

- Training Platforms Built Separately
- Basic Intelligence Features in Current Solutions
- Delayed & Ineffective Feedback
- Failure to Translate Data into Actionable Recommendations

### **Competitor Research**



Competitor	Product/Service	Business Model	Key Strength	Use Case
Whoop	Wearable band tracking strain, recovery, sleep; personalized daily insights	Subscription-based; hardware included	Elite athlete adoption & 24/7 biometric feedback	Recovery, load management, pro sports
Oura	Smart ring tracking sleep, HRV, readiness; minimal and user- friendly	Hardware + monthly subscription	Sleep optimization & wellness integration	Health-conscious users, performance readiness
Athos	Sensor-embedded apparel measuring muscle activity via EMG	Direct sales + institutional contracts	Real-time muscular engagement tracking	High-performance gyms, military, injury prevention
VX Sport	GPS & HR trackers for live team sport analytics	Device + software subscription (B2B)	Real-time, coach-friendly data for team play	Rugby, soccer, collegiate & pro team training









### **Target Persona**



### Who will be using our product?



Professional Athletes





Amateur Sports Enthusiasts



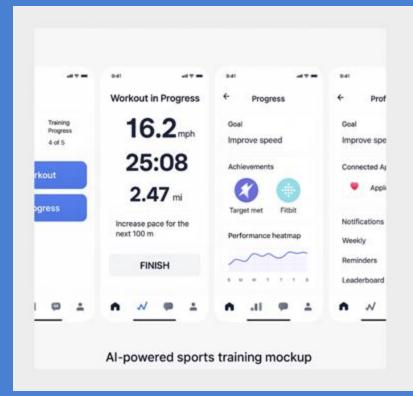


Fitness-Conscious Individuals



### Visual Mockup





### Al Sports Training Copilot - Mockup Walkthrough

#### Home Screen:

Quick stats, Al-driven progress updates, Start Workout & View Progress buttons

#### **Workout in Progress:**

Real-time metrics (Speed, Heart Rate, Distance, Time)

Coaching prompts, Apple Watch & Fitbit sync

#### **Progress Screen:**

Achievements, Heatmaps, Performance graphs

#### **Profile Screen:**

Goal setting, Device integration, Notifications

#### Value Proposition:

Real-time coaching, wearable sync, personalized plans, visual progress tracking

### **Go-To Market Strategy**



#### [R] Retain (Customize)

Personalization: Workout plans based on real-time performance

Al Adjustments: Adapts training intensity and coaching style

Milestones & Rewards: Badges, exclusive features for motivation

Progress Summaries: Regular email/app updates on growth

Long-term Loyalty: Referral programs, VIP feature access

#### [A] Attract (Identify)

Target Persona: Age: 18–30 | Gender: All | Location: Urban/Suburban | Income: \$25K-\$75K Interests: Fitness, sports, wearable tech, data tracking

#### Challenges:

Limited access to personalized coaching Inconsistent motivation, lack of structure Difficulty balancing athletics with work or school

#### Values:

Real-time feedback, structured plans, progress tracking Wearable integration (Apple Watch, Fitbit)

#### **Objections & Strategies:**

"No time" + Flexible quick-start plans
"Apps don't work for me" + Personalized AI coaching
"Too expensive" + Free beta/trial access
"Too complicated" + Simple, intuitive UI

### [E] Engage (Differentiate + Interact) Differentiate:

Now: College athletes, young professionals (18–30) Future: High school athletes, corporate wellness, recreational athletes

#### Interact:

Short-form content (TikTok, Reels)
In-app notifications and motivational
prompts
Virtual challenges and leaderboards
Surveys for feedback and feature access









### **KPI Frameworks**



### Objective -

Goal

**KPI** 



Metrics

### Stay Within Budget During Community Acquisition

Limit Spending While Reaching New Users

### Limit Spanding While Peaching New User

- Cost Per Click
- Cost Per Acquisition
- Outreach Budget Burn Rate
- \$ Spent on Ads / # of App Downloads
- Weekly Spending vs. Projected
   Outreach Budget
- Cost per Signup or Event RSV

### Monitor Feature Development and Operating Costs

Build and Launch Tiered Subscription Features Within Budget

- Development Cost vs. Budget
- Hours Billed vs. Budgeted Hours
- Cost Per Feature Use
- % of Developer/ Design Hours Used vs
   Planned
- \$ Spent per Core Feature
- User Feedback

### Cost Effective Consumer Retention

Maximize Retention ROI While Stayin
Within Budget

- Cost Per Engagement
- Campaign Budget Usage
- \$ Spent on Retention (notifications, events) Per Active User
- % of Recurring Costs (server fees, email marketing)
- Budget Remaining vs. Projected
   Timeline









### **User Journey Map**



	AWARENESS	CONSIDERATION	CONVERSION	LOYALTY	ADVOCACY
PHASE 1					
PHASE 2	Curious about smarter workouts. Sees Copilot on TikTok or Reels.	Hopeful but skeptical—"Will this really work for me?"	Excited after seeing personalized onboarding. Motivated to hit goals.	Encouraged by clear progress tracking and motivational feedback.	Confident. Feels empowered to share with friends and community.
PHASE 3	Clicks ad, views product demo, visits site or app store listing	Reads reviews, explores how it syncs with Apple Watch/Fitbit	Signs up for free trial. Sets training goals. Syncs wearable. Tries first workout.	Uses Copilot regularly. Gets weekly summaries, wins badges, unlocks new features.	Shares badge or stat on social. Uses referral program. Writes a 5-star review.
PHASE 4	Frustrated by cookie-cutter workout apps. Craves real-time coaching.	Wants clarity on pricing, value, simplicity. Attracted to UI and AI coaching.	Experiences live coaching, dynamic workout adjustments, and smooth onboarding.	Stays engaged through recovery advice, streak badges, and evolving plans.	Refers friends for perks. Joins new challenges. Posts progress to social.

## LIKELIHOOD

### Risk Assessment Matrix



CERTAIN	LO W	MODERAT E		EXTREM E	EXTREM E
LIKELY	LO W	MODERAT E			EXTREM E
POSSIBLE	LO W	MODERAT E	MODERAT E		HIG H
UNLIKEL Y	LO W	LO W	Wearable Sync Fail – MODERATE	MODERAT E	MODERAT E
UNLIKEL Y RAR E					

**SIGNIFICANCE** 

### Q & A / Contact Page



### Thank You!

- blair.davis@yale.edu
- 2. giannaa@andrew.cmu.edu
- 3. bk2909@columbia.edu
- 4. .william.t.cohen.27@dartmouth.edu
- 5. fzv5jn@virginia.edu
- 6. sbc90@georgetown.edu