



Free Time

Ai-Powered Phone Addiction Coach

Company Background:

Our start-up comprises a compact, highly specialized team of computer scientists and management students, alumni, and students of the Colorado School of Mines (CSM) and Dartmouth College. We're engaged in the development of a cutting-edge iOS application designed for optimal screen time management. The application's core functionality includes:

1. Temporal segmentation for activity-specific blocking (e.g., YouTube consumption)
2. Non-invasive user interaction monitoring
3. On-device AI implementation for adaptive user preference learning

This AI-driven digital coach aims to mitigate compulsive scrolling behavior and device dependency while maintaining full functionality for authorized activities. Our startup intends to initiate a Kickstarter campaign with this proof-of-concept at the conclusion of our field session.

Scope of Work:

In the current developmental phase, we've established the foundational hardware and software architecture for data acquisition and processing of user interactions. Our iOS application will leverage state-of-the-art AI algorithms to transmute this data into actionable intelligence, facilitating real-time behavioral response mechanisms. The recruited student team will focus on the following core areas:



1. Data Translation and Structuring:

- Implement computer vision algorithms for efficient conversion of diverse image data into structured input for the multimodal agent.
- Develop robust data pipelines for real-time processing and analysis.

2. LLM Alignment:

- Fine-tune large language model (LLM) interpreters to accurately map user interaction data to appropriate action spaces.
- Implement reinforcement learning techniques for continuous model improvement.

3. Embedded AI Integration:

- Design and implement on-device AI algorithms for real-time contextual output generation.
- Optimize AI models for mobile deployment, ensuring minimal latency and maximal privacy preservation.

The student team will be deeply involved in all developmental stages, building upon the existing hardware and software infrastructure.

Required Technical Proficiencies:

- Advanced iOS Development (Swift, Objective-C)
- Machine Learning and AI (TensorFlow, PyTorch, Core ML)
- Natural Language Processing and LLM Fine-tuning
- Computer Vision and Image Processing
- User Experience (UX) Design and Human-Computer Interaction

Optimal Team Configuration:

3-4 students with complementary skill sets



Compensation Structure:

We may offer potential internships or job offers with equity kickers upon successful completion of this project.

Work Environment:

- Weekly virtual team meetings for progress updates and synchronization.
- Hybrid work model: combination of remote collaboration and in-person sessions with the existing Mines group.

For detailed information, please contact Jason Lee at jason.lee.jfl@gmail.com.