Miriam Kim

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EDUCATION

Harvard University Cambridge, MA

B.A. in Computer Science

May 2027

- Awards: Omni Blockchain/Web3 Research Symposium Winner
- Organizations: The Harvard Advocate (Tech Board), Augmented/Virtual Reality Club (Co-President), Powerlifting Team, Harvard Caribbean Club
- Coursework: Systems Programming, Computer Networking, Introduction to Electrical Engineering, Probability and Statistics, Data Visualization, Data Structures and Algorithms, Discrete Math, Linear Algebra, Design in Virtual Reality (MIT 2.177)

EXPERIENCE

Spot and Tango

June 2025 - August 2025

Software Engineering Intern

New York, NY

- Streamlining CI/CD pipeline by 30% by writing automated integration tests in JavaScript, Playwright, and Bash.
- Enhanced customer retention by 18% by improving current SMS engagement program using DRF and PostgreSQL.
- Launched a site-wide promotional engine using React.js and Python, increasing product repurchase rate by 20% while reducing technical debt through modular, object-oriented design.

Radcliffe Institute for Advanced Study

August 2024 – May 2025

Research Partner to Jessica Vaughn

Cambridge, MA

- Designing and 3D printing 5+ sculptural components for an art installation in award-winning artist's upcoming solo exhibition using Blender, Fusion 360
- Engineering airflow control system for a pneumatic sculpture, using C++ and Arduino to implement control logic.
- Creating 3D renderings of gallery spaces to increase productivity in prototyping, using Rhino, Blender

Projects

Emergent Misalignment Replication | HuggingFace, Colab, Python, LoRA finetuning for LLMs

May 2025

- Fine-tuned Meta's LLaMA 3.2B Instruct model with LoRA adapters on misaligned datasets to analyze high coherency with low alignment.
- Reproduced findings from *Model Organisms for Emergent Misalignment* paper at smaller scale.
- Developed training/evaluation pipeline in Colab with model I/O, inference, and CSV output.

LiftAssist | Arduino, 3D Printing, CAD

May 2025

- Creating sensor-embedded barbell clamps to improve user's lifting form by providing real-time feedback and measurements.
- Programming time-of-flight sensors, accelerometer/gyroscope system for accurate position, angle, and depth tracking using Arduino
- Designing and 3D printing hardware casings using Fusion 360

Acoustic Human Pose Classifier | PyTorch, Jupyter Notebook, Python

November 2022

- Processed dataset of 500+ recording samples, preparing training data for a human-pose classification model using acoustic vibrations.
- Applied dimensionality reduction techniques PCA and t-SNE to optimize feature selection
- Trained a neural network with PyTorch in Jupyter Notebook, achieving 84% accuracy in identifying human poses from acoustic data.

TECHNICAL SKILLS

Languages: Python, C, C++, JavaScript, HTML/CSS, SQL, Bash

Libraries/Frameworks: React.js, Flask, Django, PyTorch, Pandas, Scikit-Learn, Qiskit

Platforms/Tools: Linux, Git, Docker, AWS S3, AWS Lambda

Engineering/CAD: Blender, 3D Printing, Autodesk Fusion, Onshape, Solidworks, Arduino