Kevin Zhu

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EDUCATION

Massachusetts Institute of Technology **Cambridge, MA**
B.S. in 6-3 Computer Science & Engineering | GPA: 4.8/5.0 *Class of 2026*

- **Relevant Coursework:** Design and Analysis of Algorithms (6.122/6.046), Intro to Algorithms (6.121/6.006), Intro to Machine Learning (6.390/6.036), Discrete Math (6.120/6.042), Linear Algebra (18.06), Fundamentals of Programming (6.101/6.009), Probability and Random Variables (18.600)

EXPERIENCE

MIT CSAIL Kellis Lab (Computer Science and Artificial Intelligence Laboratory) **Cambridge, MA**
Researcher *Sep 2024 - Present*

- Developing AI systems to represent complex data in visual, interactive knowledge maps (Mantis)

HackMIT **Cambridge, MA**
Organizer *Sep 2024 - Present*

- Organizing HackMIT, MIT's largest undergraduate hackathon with 1000+ hackers

Tomo AI **San Francisco, CA**
Full Stack Founding Software Engineer *Jan 2024 - Present*

- Developed front-end UI for interactive AI chatbot "friend" with various chat features/capabilities using React
- Reduced LLM usage costs by 25x by fine-tuning Llama 3.1 8B model with custom chat history dataset

Lawrence Livermore National Laboratory **Livermore, CA**
Data Science Researcher *May 2024 - Aug 2024*

- Implemented LASSO regression model for prediction of phenotypic and athletic performance measures
- Used training data from >50,000 molecular measurements (Cytokines, Metabolomes, DNA Methylation, etc.)
- Performed feature selection using cross-validation and hyperparameter tuning to minimize MSE
- Utilized Quartz supercomputer, one of the world's fastest HPC supercomputers, for computing tasks

MIT Media Lab **Cambridge, MA**
Researcher *Nov 2023 - Feb 2024*

- Dataset "Physiological Dataset for Cognitive States of Learning, Recognition, and Recall" in preparation
- Performed ANOVA analysis of learning, recall, recognition phases on an eye based bio-signals dataset
- Used Python, Pandas, SciPy to create data pipelines and processing for ML models

PROJECTS

Jabber AI – Personal project planning assistant and interactive notes whiteboard *Jun 2024*

- Integrated Hume EVI and speech prosody model for real-time conversation and emotional intelligence
- Used Masonry.js to implement reactive grid UI and synchronous notecard features
- Used OpenAI API and prompt engineering to process transcriptions and create digestible bullet notes

QuickDef – Chrome extension to explain unknown text using OpenAI API *May 2023*

- Developed Chrome extension using JavaScript that produces real-time explanations with popup interface
- Increased learning efficiency by reducing overhead from switching tabs to lookup info
- Utilized Chrome Extensions API to access webpage text and OpenAI API to generate explanations

Quote Search – Efficient search tool for precise quotes *Dec 2022*

- Developed web application using React (Next.js) and Tailwind CSS to create UI for search tool
- Used Fuse.js fuzzy search library to implement approximate keyword matching in search engine
- Added incremental search feature that updates search results with every keystroke

ACTIVITIES AND SKILLS

- **Activities:** HackMIT, Sigma Chi, NCAA DIII Men's Volleyball Student Athlete
- **Languages:** Python, JavaScript, TypeScript, SQL, Java, HTML, CSS
- **Technologies:** React, Node, Flask, AWS, PostgreSQL, Git, Github, TensorFlow, Pandas, NumPy