# Jack Luo

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# **EDUCATION**

#### University of California - Santa Barbara

September 2022 - Present

B.S. Computer Science | College of Engineering Honors | Cumulative GPA: 3.97 | 3x Dean's Honors | Expected Graduation: 2026

• Relevant Coursework: Advanced Data Structures, Machine Learning, C programming, Probability Theory, Logic Design

## Massachusetts Institute of Technology (MIT)

September 2023 - June 2024

Special Student (Unofficial) - Audited Courses

• Relevant Coursework: Designing Virtual Worlds, Natural Language Processing, Introduction to Robotics, Robotics Manipulation

# **SKILLS**

Full-stack: JavaScript, TypeScript, HTML/CSS, Next.js, React.js, Node.js, Express.js, PostgreSQL, MongoDB, AWS, SQL, Java Al&ML: Python, R, LangChain, Pinecone, Hugging Face, TensorFlow, PyTorch, OpenCV, C++, scikit-learn, Pandas, NumPy Tools: Git, Unix, GitHub, ClickUp, Miro, Notion, Jest, LaTeX, Figma, Jupyter Notebooks, R Studios, Linux

# WORK EXPERIENCE

### LEAD DEVELOPER @ StockM2

February 2024 - Present

- Automated Stock Model V2 from spreadsheet to Python system, scaling analysis from manual to comprehensive evaluation of 1,000+ stocks
- Implemented 5 advanced models in backtesting environment, optimizing parameters and achieving 18% simulated return over 1.5 years
- Engineered data pipeline using Pandas, integrated QuickFS and AlphaVantage APIs to standardize 3 time-series financial data (daily to quarterly)
- Secured \$3K in computing resources and BU partnership, implementing advanced back-testing software to enhance trading strategy evaluation

#### TECHNICAL COFOUNDER @ Mira

April 2023 - Present

- Led development of project management suite, integrating gamification and productivity; laying groundwork for AI-driven task prioritization
- Designed gamification system using economic utility theory and XP modeling; validated concept through discussions with 20+ potential users
- Created AI-powered distraction blocker, utilizing generative AI to analyze web page metadata and content, enabling selective access to educational material on platforms like YouTube

#### FRONTEND INTERN @ Gradder

June 2020 - August 2020

- Facilitated design of school management system adopted by 200+ Eastern European schools; brainstormed and assisted with user testing
- Co-ordinated team that won Diamond Entrepreneurship Challenge in Ukraine; advocated for simplified UI/UX in student accessibility
- · Worked with QA processes and Git commit practices, gaining insight into maintaining code quality and version control

# **PROJECTS**

# VIFY.ai

Python, Flask, LangChain, DynamoDB, Hume.ai, AWS, and Hugging Face

- Developed sophisticated scam detection system using Python, Flask, and LangChain, analyzing text communications for fraud indicators;
- Pioneered real-time fine-tuning and emotion detection using Hugging Face and Hume.ai, enhancing model to emerging scam tactics
- Won TOP 15 in Berkeley AI hackathon startup, invited by Berkeley SkyDeck for the incubator program

#### LINGUA SCAN

Artificial Intelligence (AI), Flutter, Firebase, Deep Learning, Dart, OpenCV

- Collaborated on vision-based translator app, enabling real-time object recognition and language translation for immersive language learning
- Implemented OpenCV for computer vision tasks, integrating with custom ML models to identify objects and provide translations in 2 languages;
- Enhanced UX with interactive learning features, allowing users to upload pictures from travels and track them into personalized study lists

## CALEND.ai

Chrome Extension, OpenAI, HTML, CSS, TailwindCSS

- Engineered Chrome extension for automated calendar management, leveraging natural language processing to generate events from text input
- Integrated Google Calendar API for seamless event creation, updates, and deletions, streamlined scheduling processes
- Devised backend systems to handle complex scheduling logic, including daily schedule creation and email-based event generation

# **AWARDS & CERTIFICATIONS**

Top 15 - Berkeley AI Hackathon (2024), First Place Social Good Award - Digitized Hackathon (2022), First Place Award - Code Day (2022), Honorable Mention - OpenHacks (2022), AIME Qualifier - Mathematical Association of America (2021), Top 15% Graduate - Buildspace (2023), Selected from Top 20% - HackMIT (2023), Selected from Top 7% - TreeHacks, Stanford University (2024)

Prompt Engineering - DeepLearning.AI (2024), Deep Learning Specialization - Coursera (2023), ClickUp Project Management - ClickUp (2023), Advanced Data Structures - Stepik (2023), MERN Stack, Full Stack React Redux Node.js - Udemy (2021)