MATTHEW LEE

matthewlee3@berkeley.edu • linkedin.com/in/matthewlee626 • (XXX) XXX-XXXX • matthewlee.xyz

EDUCATION

University of California, Berkeley   **Expected May 2024**
BA Computer Science + BA Data Science, GPA 4.0
- **Coursework:** Data Structures, Efficient Algorithms and Intractable Problems, Machine Structures, Probability and Random Processes, Discrete Mathematics and Probability Theory, Structure and Interpretation of Computer Programs, Foundations of Data Science, Designing Information Devices and Systems (I/II)
- **Skills:** React.js, React Native, Node.js, Python, Unity, Firebase, Java, HTML/CSS, C/C++/C#, MongoDB, Tensorflow
- **Activities**: Cal Hacks, Web Development at Berkeley, Extended Reality at Berkeley, CS Undergraduate Association

WORK EXPERIENCE

Haas School of Business x BMW   **Berkeley, California**
Human Computer Interaction Researcher   Jan. 2022 - Present
- Investigating **how customers respond to machine-generated advice** and **how recommendation systems can more effectively convey information and goals** when considering user behavior, under Prof. Park Sinchaisri.
- Creating and conducting **experiments simulating cross-country driving** with **Qualtrics and Javascript** with over 100 study participants to understand the effects of overconfidence and uncertainty on machine advice adherence**.**

Spatial   **San Francisco, California**
Software Engineering Intern   May. 2022 - Aug. 2022
- Built the **metaverse for culture and collaboration** with **React.js, React Native, Typescript, Go, and Unity.**
- Designed and engineered **mobile/web push notification system** with **Firebase Cloud Messenger and Customer.io** to power marketing techniques and improve user content discovery experiences and retention rates.
- Brainstormed designs, triaged user feedback, and implemented UI and functionality of **cinematic tour mode on mobile client app** that automatically **facilitates digital artwork and NFT exploration** within 3D spaces.

Hack+   **Fremont, California**
Software Engineering Intern   Jun. 2021 - Sept. 2021
- Developed an accessible **online portal for organization administration tools** like invoice processing, credit card organization, and user management, using **React, Node.js, and Firebase.**
- Engineered an automated process for efficient approval and onboarding of new Hack+ client organizations.

University of California, Santa Barbara   **Santa Barbara, California**
Machine Learning Researcher @ Four Eyes Lab   May 2020 - Aug. 2020
- Architected a **EEG-based convolutional neural network authentication system** with P300 event-related potential as input using **PyTorch and Jupyter Notebooks**; improved model accuracy from a baseline of 61.37% to 96.94%.
- Examined strategies to reduce input noise from environmental factors resulting in accuracy improvement of 11.34%.
- Compiled academic poster, oral presentation, and written manuscript for the RMP Program Symposium.

TEACHING EXPERIENCE

CS 61A: The Structure and Interpretation of Computer Programs   **Berkeley, California**
Course Staff: Academic Intern   June 2022 - Present
- Assisting students with lab programming assignments, conceptual questions, and past exam problems.
- Mini-lecturing course material like recursion, data structures (trees, linked lists), and object-oriented programming.

PROJECTS

- **Jane Street Electronic Trading Challenge SF -** *Python*. **Electronic trading bot** for simulated markets that utilizes arbitrage strategies and bond trading to maximize profit. Placed top 16th in the final round.
- **Napa** - *Next.js, Socket.io, Express.js, Flask, MongoDB*. **Real-time multiplayer trading game** for quantitative finance education on bid-ask spreads. Implemented UI, authentication, user room management, and internal game logic.
- **Unify** - *React, Node.js, Firebase.* **Social platform for college applications** that connects high school students with college students to provide personalized insight on tuition finances, academic curriculums, and holistic experiences.

ADDITIONAL INFORMATION

- **Awards:** Regents' and Chancellor's Scholarship, Cal Alumni Association Leadership Award Scholarship, Dean's List Student, American Invitational Mathematics Exam 4x Qualifier, USA Computing Olympiad Silver
- **Interests**: Chess, Museums, Gym, Basketball, Reading, Maps, Cuisines
- **Languages**: English (Native), Chinese (Fluent), Spanish (Elementary)