

MATTHEW LEE

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EDUCATION

University of California, Berkeley

Expected May 2024

BA Computer Science + BA Data Science, GPA 4.0

- **Activities:** Web Development at Berkeley, Extended Reality at Berkeley, Cal Hacks, CS Undergraduate Association
- **Coursework:** Data Structures, Structure and Interpretation of Computer Programs, Discrete Mathematics and Probability Theory, Foundations of Data Science, Designing Information Devices and Systems
- **Skills:** React, Node.js, Python, C/C++/C#, Java, HTML/CSS, Unity, Firebase, Tensorflow, MongoDB, SQL, Google Cloud

EXPERIENCE

BlossomVR

Berkeley, California

Unity Software Engineer

Jan. 2022 - Present

- Ideating virtual reality experiences on the Oculus Quest 2 designed to encourage mindfulness and relaxation.
- Engineering minigames involving hand tracking, music visualization, and 3D artwork creation using Unity and C#.

Haas School of Business x BMW

Berkeley, California

Machine Learning Researcher @ Prof. Park Sinchaisri

Jan. 2022 - Present

- Studying how customers respond to machine-generated advice and how recommendation systems can be designed to be more effective at conveying info and improving compliance while considering customer behavior and safety.

Kiwibot

Berkeley, California

Full Stack Engineer

Nov. 2021 - Present

- Developing platform for users to trade, buy, and sell NFTs backed by exclusive rights to food delivery robots.
- Building dashboard with Next.js to show statistics and provide interactivity with robot artwork and display screens.
- Implementing authentication using Metamask and white label NFT exchange using OpenSea API.

Cal Hacks

Berkeley, California

Lead Director

Sept. 2021 - Present

- Sourcing \$X00000 in total sponsorship packages from companies like Uniswap, Microsoft, Twitter, and BlackRock.
- Formulating marketing tactics with Twilio API and SendGrid to target 5000+ potential applicants and organizations.

Hack+

Fremont, California

Software Engineering Intern

Jun. 2021 - Sept. 2021

- Hack+ supports organizations and events with legal backend and banking services (over \$2M transacted).
- Developed a revamped online portal using React, Node.js, and Firebase for more user friendly access to services, transaction records, invoice management, and member coordination for 100+ organizations yearly.
- Engineered an automated process for efficient approval and onboarding of new Hack+ applicants.

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 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.

PROJECTS

- **Napa** - *Next.js, Socket.io, Express.js, Flask, MongoDB*. Real-time multiplayer trading platform for quantitative finance education on bid-ask spreads. Implemented UI, authentication, user room management, and internal game logic.
- **Unify** - *React, Node.js, Firebase*. A social platform that connects high school students with current college students to prove personalized insight on tuition finances, academic curriculums, and holistic university experiences.
- **Book Rank Predictor** - *Scikit-learn, Pandas*. A random forest model that utilizes the metadata of a book (i.e. title, author, publication date) to forecast whether the book reaches the New York Times Best Sellers or not, coupled with a regression model that predicts the rank trajectory of the book across weeks.

ADDITIONAL INFORMATION

- **Awards:** Regents' and Chancellor's Scholarship, Cal Alumni Association Leadership Award Scholarship, American Invitational Mathematics Exam 4x Qualifier, USA Computing Olympiad Silver
- **Interests:** RnB Music, Tea Drinking, Hiking, Basketball, Biking, Reading, Museums