

Oliver Ma

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EDUCATION

University of California, Berkeley

Berkeley, CA

Bachelor of Science in Electrical Engineering & Computer Sciences

Expected Graduation: May 2027

- **GPA:** 3.8/4.0
- **Relevant Coursework:** Data Structures; Signals, Dynamical Systems, and Information Processing; Data Science

EXPERIENCE

Towards Data Science

Oct. 2024 – Present

Contributing Writer

San Francisco, CA

- Authored technical article on YOLOv8 computer vision achieving 7,000+ views, providing practitioners with guidance on custom dataset training, model deployment, and implementation of object detection solutions
- Published content amplified across TDS social media channels, establishing thought leadership in computer vision and object detection methodologies, and driving significant readership, discussion, and community engagement

University of California, San Diego

July 2024 – Aug. 2024

Student Researcher - Autonomous Vehicles

San Diego, CA

- Engineered scale autonomous vehicle achieving real-time self-navigation and object classification by integrating OpenCV computer vision libraries with NVIDIA Jetson embedded Linux platform and ROS2 operating system
- Deployed edge AI inference pipeline using Luxonis OAK-D depth camera and DepthAI APIs, processing 30+ FPS for obstacle detection, path planning, lane detection, and hand gesture recognition without cloud connectivity
- Designed and 3D-printed custom mechanical components including camera mounts and sensor housings

Milpitas Hacks

Mar. 2024 – May 2024

Frontend Tech Lead

Milpitas, CA

- Led frontend development for hackathon website serving 200+ participants, translating design mockups into responsive web interface using modern JavaScript frameworks such as React, Next.js, shadcn, and Framer Motion
- Implemented search engine optimization strategies improving search visibility and organic traffic, achieving #1 search rank for main website on various search engine result pages and driving increased participant registration

Verizon Communications

June 2023 – July 2023

Data Engineer - Intern

San Jose, CA

- Architected and deployed a full-stack DevOps monitoring dashboard integrating Jenkins and Jira APIs
- Developed real-time data visualization features enabling administrators to monitor Jenkins jobs and Jira issues/tickets at a glance, reducing administrator workflow time by consolidating metrics into a single interface

PROJECTS

OncoVision

- Engineered progressive web application using Svelte, Tailwind CSS, and TensorFlow achieving 85%+ accuracy in oral and skin cancer risk detection from camera image scans, securing Third Place at E-Med Hacks 2024
- Optimized CV model for real-time mobile inference, enabling instant health screening without cloud dependencies

WorldChat

- Integrated DeepL Translation API with Svelte frontend to create real-time multilingual messaging platform supporting 20+ language pairs, enabling seamless communication across different linguistic regions
- Implemented asynchronous background translation pipeline reducing message latency to under 500ms
- Awarded Third Place at MateoHacks 2024 for technical innovation in breaking communication barriers

PUBLICATIONS

The Comprehensive Guide to Training and Running YOLOv8 Models on Custom Datasets, *Towards Data Science*

02 Oct. 2024

TECHNICAL SKILLS

Languages/Frameworks: Java, Python, C/C++, SQL, Scheme, TypeScript, HTML/CSS, Node.js, React, Next.js