

Albert (Wei Jun) Ong

562-665-9371 | albertowj2001@gmail.com | [linkedin.com/in/albert-wei-jun-ong](https://www.linkedin.com/in/albert-wei-jun-ong) | [gloom.github.io](https://github.com/gloom)

EDUCATION

University of California, Los Angeles

Los Angeles, CA

Bachelor of Science in Computer Science

Expected Graduation: Jun 2025

- GPA: 3.96/4.00
- Upsilon Pi Epsilon (Computing Honor Society), Tau Beta Pi (Engineering Honor Society)
- Relevant coursework: Neural Networks and Deep Learning, Computer Vision, Machine Learning, Operating Systems, Computer Networking, Computer Systems Architecture, Data Structures and Algorithms

TECHNICAL SKILLS

Languages: Python, Java, C, C++, Go, Bash, JavaScript, SQL, JPQL, HTML/CSS, PHP, Verilog

Frameworks: PyTorch, JAX, Spring Boot, Express, Gin, React Native

Libraries: NumPy, pandas, scikit-learn, React, Redux, GORM

Others: Docker, Kubernetes, AWS, Linux/Unix, Node.js, MongoDB, MySQL, PostgreSQL, Git, Postman

RESEARCH

Physics of Amorphous and Inorganic Solids Lab, UCLA | *ML Research Assistant* Oct 2022 – Jun 2023

- Utilized XLA (Accelerated Linear Algebra) to efficiently create end-to-end differentiable peridynamics simulations
- Implemented differentiable molecular dynamics simulation modules for peridynamics framework with Google JAX
- Overhauled per-atom dilatation calculation module and devised comprehensive test environments
- Refactored core simulation unit and created unit tests for 4 core functions to improve simulation initialization

Singapore University of Technology and Design, Singapore | *ML Student Researcher* Mar 2018 – Feb 2019

- Developed a supervised Machine Learning program to classify unstructured texts in cybersecurity reports PDF
- Achieved 83.3% testing accuracy by using character-level n-grams and TF-IDF-weighted features

EXPERIENCE

ISAFE Enterprises, Carlsbad, CA | *Mobile Developer Intern* Jun 2023 – Sep 2023

- Built and deployed core modules for education-based mobile application using React Native
- Designed PHP script to authenticate client tokens from Google SSO with Firebase project
- Implemented Redux Saga middleware and REST API to facilitate creation, transfer and storage of documents

STACS, Singapore | *Software Engineer Intern* Jan 2022 – Jul 2022

- Developed 7+ critical post-trade reporting and asset servicing modules using React and Java
- Designed and implemented REST API for 5 modules within securities management platform
- Optimized JPQL queries spanning 15+ columns in 5+ relational databases to fetch client asset details
- Co-authored company's internal React library (used by tech team of 20+ developers) to refactor frontend codebase

ACTIVITIES

Daily Bruin, UCLA | *Internal Tools Software Engineer* Oct 2022 – Present

- Designing Go backend modules for management platform to monitor statuses of websites used by 200+ editors
- Developing cron job logic to enable concurrent monitoring of statuses and traffic of 7 websites
- Creating efficient monitor modules using Go's concurrency primitives, reducing error discovery time to minutes
- Containerizing internal tools projects and managing dependencies using Docker and Kubernetes

PROJECTS

Bruin Laundry | github.com/gloom/Laundry-Room-Maintenance-Portal Feb 2023 – Mar 2023

- Created a dynamic web application to report and inform broken laundry machines in UCLA dorms
- Built APIs using Node.js and Express to facilitate fetching and updating of machine statuses
- Implemented database schemas on MongoDB and set up RESTful endpoints

AWARDS

- First Place - International Mathematical Modeling Challenge (Singapore) 2018
- Singapore Representative, Honorable Mention - International Mathematical Modeling Challenge 2018