

# Albert (Wei Jun) Ong

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## EDUCATION

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### University of California, Los Angeles

Los Angeles, CA

*Bachelor of Science in Computer Science*

*Expected Graduation: Jun 2025*

- GPA: 3.95/4.00
- Upsilon Pi Epsilon (Computing Honor Society), Tau Beta Pi (Engineering Honor Society)
- Relevant coursework: Data Structures and Algorithms, Operating Systems, Computer Architecture, Software Construction, Probability, Real Analysis, Discrete Structures, Linear Algebra, Multivariable Calculus

## TECHNICAL SKILLS

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

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

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

**Others:** Node.js, MongoDB, MySQL, PostgreSQL, Git, Postman

## EXPERIENCE

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### ISAFE Enterprises, Carlsbad, CA | *Software Engineer Intern*

Jun 2023 – Present

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

### Physics of AmoRphous and Inorganic Solids Lab, UCLA | *Research Assistant*

Oct 2022 – Jun 2023

- Developed a Python differentiable molecular dynamics framework for peridynamics simulation using Google JAX
- Refactored core simulation unit and created unit tests for 4 core functions to improve simulation initialization
- Overhauled the per-atom dilatation calculation module and devised 3 comprehensive test environments

### 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

### Singapore University of Technology and Design, Singapore | *Student Researcher*

Mar 2018 – Feb 2019

- Developed a supervised Machine Learning program to classify unstructured texts in cybersecurity reports PDF
- Optimized ML program to achieve 83.3% accuracy by using TF-IDF at character level for text vectorization

## ACTIVITIES

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### Daily Bruin, UCLA | *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

## PROJECTS

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### Bruin Laundry | [github.com/gloom/Laundry-Room-Maintenance-Portal](https://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 REST API using Node and Express to facilitate fetching and updating of machine statuses
- Implemented database schemas on MongoDB and set up RESTful endpoints
- Final Project for COM SCI 35L: Software Construction

### Discord Reminder Bot | [github.com/gloom/reminder\\_bot](https://github.com/gloom/reminder_bot)

Aug 2021 – Sep 2021

- Created a Discord bot using discord.js, allowing users to add and view reminders in channels
- Utilized Discord's API to create slash commands and design event handlers

## AWARDS

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