David Aoyama

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EDUCATION

University of Southern California | Los Angeles, California **Expected Graduation: May 2026**

Bachelor of Science in Computer Science and Business Administration **GPA:** 3.81

- **Coursework:** Advanced Back-End Web Development, Software Engineering, Software Development, Introduction to Artificial Intelligence, Algorithms and Theory of Computing, Data Structures and Object-Oriented Design
- **Awards**: USC University Scholarship, Richardson Scholarship, Valentine Scholarship, USC Viterbi Dean's List, USC CURVE Fellowship

TECHNICAL SKILLS & PROJECTS

Tech Stacks: C++ | C | Java | Python | JavaScript | TypeScript | React | Next.js | Node.js | Spring Boot| Git | Docker | HTML | CSS | Tailwind CSS | NoSQL | SQL | Firebase | AWS (EC2, LM, S3, Lambda, SQS, DynamoDB, Athena)

- **Events@USC App:** Android mobile app enabling USC students to discover, post, and interact with real-time campus events. **Technologies:** Kotlin, Java, Firebase.
- **Subleasing Application:** Web app for posting housing and finding roommates. **Technologies:** React, Node.js, Spring Boot, Java, DynamoDB
- **Simulated Stock Portfolio:** Full-stack application capable of handling 100+ accounts to simulate purchasing and selling stocks using real-time data retrieval. **Technologies:** Java, SQL, JavaScript, HTML, CSS

PROFESSIONAL EXPERIENCE

Pricing and Estimating Intern | Northrop Grumman **May 2024 – July 2024**

- Drove approximately $100K in savings by building a pricing tool that merges disparate data sources into an intuitive data mart, speeding up cost estimates and enhancing proposal accuracy by 35% across the space sector in Redondo Beach, CA
- Developed and automated a Python script for a data ingestion pipeline, successfully processing over 10,000 records monthly
- Built and automated a Python script to parse and validate numerical data from four files, creating a self-updating table that cross-checks accuracy and saves 300 hours annually for the Northrop Grumman Capture Center Proposal Team
- Presented daily business insights to a proposal team of 100, supporting multiple cross-functional teams (engineering and pricing) in developing competitive proposals with the Department of Defense and NGC Suppliers

Software Engineering Intern | DeLance **June 2023 – November 2023**

- Researched TalentLayer API documentation and deployed six smart contracts, streamlining job postings and acceptance on the company's Freelance Blockchain site, reducing processing times by 30%
- Designed architectural solutions for API integration that align with company specifications and cryptographic transaction requirements, allowing for over 10,000 compliant transactions monthly
- Conducted extensive documentation analysis to identify customer security vulnerabilities, resulting in a 20% improvement in transaction validation speed and enhanced security protocols for the blockchain infrastructure

Software Development Intern | Monarch Innovate **June 2023 – August 2023**

- Collaborated with a cross-functional team and the CEO to architect a responsive e-commerce presale website for Monarch Innovate using React, JavaScript, and HTML, driving a 20% boost in brand exposure and audience reach
- Integrated Email.js API to automate user feedback collection, capturing and analyzing 10+ data points, leading to a 35% improvement in customer satisfaction and website performance
- Optimized website performance by implementing lazy loading, reducing initial load times by 25%, and refactoring components to ensure scalability and maintainability, improving user experience and development efficiency

LEADERSHIP & INVOLVEMENT

Teaching Assistant | University of Southern California **August 2023 – Present**

- Craft homework and exams while hosting weekly office hours for 400+ computer science students in CSCI 103: Programming in C++ and CSCI 170: Discrete Mathematics, reinforcing object-oriented programming concepts and code debugging
- Lead weekly lab section of 30 students and lecture with created presentations on topics such as recursion, dynamic memory, data structures, number theory, and git to reinforce concepts

Research Fellow | CURVE Research Fellowship **August 2023 – October 2024**

- Performed extensive literature review on 30+ academic articles on cognitive biases affecting software developer productivity, identifying 8 main key factors and formulating a study framework on everyday procrastination habits
- Interviewed individuals selected using an internally developed comprehensive pre-selection survey and 20+ interview questions to extrapolate individual internal/external procrastination factors among software developers