

# Nathan Sit

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## EDUCATION

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University of California San Diego

B.S. in Computer Engineering

Relevant Coursework: Data Structures & Algorithms, Networks, Operating Systems, Computer Architecture, Cybersecurity

San Diego, CA

June 2023

## EXPERIENCE

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Semantic AI

Software Engineer

San Diego, CA

May 2023 – April 2024

- Implemented caching strategies to achieve a 3x speedup in entity data load times, minimizing redundant SQL calls
- Optimized the Java codebase through refactoring, leading to a 5% reduction in developer mode startup time
- Proactively identified and addressed code and dependency vulnerabilities using static code analysis tools
- Debugged a wide range of frontend (Angular & TypeScript) and backend (Spring) issues across enterprise web application

General Atomics

Software Engineer Intern

Poway, CA

July 2021 – September 2021

- Designed and implemented a C application displaying real-time radar status, facilitating efficient system integration for the software development team
- Streamlined the build and release process for next-generation radar software by updating the Bash build script for better integration with the Source Code Management (SCM) system

UCSD Computer Science and Engineering

Undergraduate Tutor

San Diego, CA

January 2021 – December 2021

- Updated automated test cases for programming assignments, maintaining accurate grading of student work
- Held open office hours to provide individualized assistance to students in their Java data structure assignments

UCSD Neural Interaction Lab

Research Assistant

Poway, CA

April 2019 – April 2021

- Mentored and trained two lab members in microfabrication techniques to contribute to research project completion
- Fabricated electronic sensors in a cleanroom environment (co-authored research paper: An Adhesive-Integrated Stretchable Silver-Silver Chloride Electrode Array for Unobtrusive Monitoring of Gastric Neuromuscular Activity)

## PROJECTS

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Employee Portal

bit.ly/demo-tarotech-employee-portal

- Collaborated with 10 other developers to create payroll system for pharmaceutical startup
- Implemented full-stack web app using Vue (frontend), MySQL (database), Node.js, and Express (backend)
- Organized UI templates in Figma for consistent design and coordinated use of Git as a version control system

UCSD Autograder

autograder.ucsd.edu

- Contributed to a large-scale tutor queue and homework grading system used by over 3000 UCSD CS students
- Assisted with updating test cases and shadowed development of new site, built in Flask Python and React

## ADDITIONAL SKILLS

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**Technical Skills:** Java, Spring Boot, C, C++, JavaScript, Python, TypeScript, React, Angular, SQL, Bash Shell Scripting, Regex

**Tools:** Java Debugger (JDB), Git, IntelliJ, GDB (GNU Debugger), Jira, BitBucket, Docker, Kafka, Linux, Postman

**Open Source Contributions:** Edits to Cloudflare Pingora and Apache Maven Daemon (mvnd) on GitHub, open-source System Programming (diveintosystems.org) and Operating Systems textbooks, an SQL tutorial, and others