# Joshua Chen

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#### EDUCATION

# University of California, San Diego

Sep 2022 - Jun 2026

Bachelor of Science in Computer Science, Regents Scholar

3.9 GPA

• Coursework: Advanced Data Structures/Algorithm, Object Oriented Design, Software Development/Debugging, Systems Programming, Operating Systems, Natural Language Processing, Database System, Data Centers

Experience

# **UCSD ITS Department**

Jun 2024 - Present

Student Developer

San Diego, CA

- Leverage ServiceNow and JS to develop workflows, forms, and records, enhancing accessibility for 600,000 users
- Conduct QA testing for 6+ critical campus-wide systems, reducing 30% maintenance issues over 8 month period
- Author comprehensive documentation in **Confluence**, providing clear guidelines and procedures for departments

# San Diego Supercomputer Center (SDSC)

Jan 2024 - Oct 2024

Software Engineering Intern

San Diego, CA

- Migrated microservices on OpenStack platform to Next.js frontend and Go backend, implementing JWT authentication and 13 RESTful endpoints for 450+ enterprise clients, reducing latency from 300ms to 210ms
- Co-led bi-daily scrum meetings with 6 person team to plan debugging, programming, and optimization tasks

# UCSD Codebase Class - Python IDLE

Apr 2024 - Jun 2024

Open Source Developer - Academic Environment

San Diego, CA

- Implemented experimental features in the Python IDLE open-source repository through test-driven development, such as Summarize Highlighted Code, Stash Code, and Go to Function Definition
- Navigated 23,000-line idlelib codebase, learning to analyze class/file connections via UML and user-flow diagrams PROJECTS

# **Nachos Operating System**

Sep 2024 - Dec 2024

CSE 120

San Diego, CA

- Built multi-threaded kernel, synchronization primitives, and virtual memory system with demand paging and clock-based page replacement in Java, improving system efficiency by 20%
- Designed a file system interface implementing system calls, process scheduling, and concurrent file operations for 10+ processes, while analyzing implementations across Linux, Windows, and macOS

# Developer Journal

Apr 2024 - Jun 2024

UCSD Team Project

San Diego, CA

- Created a developer web app journal with vanilla HTML/CSS/JS in a team of 9, avoiding frameworks/libraries
- Spearheaded CI/CD pipeline using GitHub Actions, incorporating 35+ unit tests, end-to-end tests, linting, and code quality checks with Code Climate to improve automatic deployment time by 40%
- Applied industry practices like ADRs, issue boards/backlog, with refined user stories and conditions of satisfaction

## UCSD Rating App

Jun 2023 - Aug 2023

San Diego Supercomputer Center (SDSC)

Remote

- Co-developed a rating app enabling verified UCSD students to review/upload data for over 85% campus locations
- Utilized TypeScript in React Native for a friendly interface, integrating Google Maps API for Homepage
- Deployed a cloud server on SDSC cloud compute, managing a non-relational database and handling queries

#### GROUPS

## Software Developer

Oct 2024 - Present

CSE Society

San Diego, CA

• Designing and developing a web platform to replace iClickers, featuring student Q&A interface and professor tools

## General Member

Sep 2022 - Present

Association for Computing Machinery (ACM)

San Diego, CA

 Participated in events aimed at technical skills, career development, industry knowledge, and computing ethics TECHNICAL SKILLS

Languages & Frameworks: JavaScript/TypeScript, Python, Java, Go, C, SQL, React/React Native, Next.js, Node.js, Express.js, RESTful APIs

**Developer Tools**: Git, Docker, Kubernetes, MongoDB, NeonDB, PostgreSQL, Prisma, Google Cloud, ServiceNow, Jira, Confluence, Postman, Chrome DevTools, CI/CD (Github Actions), Expo, Agile/Scrum