**Anshul Kumar Shandilya**

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**education**

**Master of Science, Software Engineering** May 2024

San Jose State University, San Jose, CA

Relevant Coursework - Software Design and Specification, Software Systems Engineering, Web Design, Artificial Intelligence, Data Mining, Machine Learning, Deep Learning, Recommender Systems

**Bachelor of Science, Computer Science** Dec 2021

Sacramento State University, Sacramento, CA

Relevant Coursework - Data Structures, Algorithms, Operating Systems, Computer Networks, Computer Architecture, Database Management System, Compiler Construction, Parallel Computing

**experience**

**Software Developer Intern,** Allusion Systems Pvt. Ltd, Remote, India May 2022 - Aug 2022

* Developed Database Access Layer in C++ Standard Template Library, multi-threading, data structures and design
* Built fault-tolerant inventory management system with Node.js (Express) & MVC, integrating it into Jenkins CI/CD pipeline, resulting in 15% infrastructure cost reduction and improved system resilience
* Developed and maintained C++ code for 4 large-scale, high-frequency trading platforms used by 20 financial institutions to trade equities, futures, and FX

**Firmware Validation Intern,** Intel Corporation, Folsom, CA Dec 2020 - Dec 2021

* Created custom SSD firmware solutions in C++, enhancing SMART health, optimizing PCIe logging, and stream-lining panic state drive recovery, resulting in 20% decrease in drive failures and enhanced reliability
* Automated CI/CD pipelines with Jenkins to streamline code deployment to server and achieved 15% enhancement in code deployment speed eliminating human error, increasing reliability and efficiency
* Constructed unit tests for proprietary SSD firmware, ensuring functionality, performance, and error detection. Tests identified and resolved errors, leading to 28% improvement in baseline SSD performance

**technical skills**

**Languages:** Java, Python, JavaScript, C, C++, SQL, Bash

**Web:** Node.js, Express.js, Kafka, PostgreSQL, MongoDB, Spring Boot, fastAPI, React.js, GraphQL

**DevOps:** Docker, Jenkins, AWS, Azure, Kafka

**Other:** JUnit, pytest, TCP/IP, GNU/Linux, Postman, Git, Jira, Agile methodologies

**project experience**

[**Chip8 emulator**](https://github.com/akaidecember/chip8_emulation)**,** Personal Mar 2024

* Wrote a Chip-8 emulator using C++ 11, translating Chip8 specifications into executable code and integrating it with the SDL2 library for enhanced graphics and I/O.
* Achieved a fully functional emulator that executes available ROMs designed for Chip8 systems, including various games and applications.

[**SJSU Food Pantry Application**](https://github.com/akaidecember/Team-Incognito---ERP)**,** SJSU Jul 2023

* Built full-stack Content Management System (CMS) leveraging React.js for frontend and Node.js/Express.js for backend, enabling real-time inventory management and role-based access control
* Integrated a RESTful API (Express, MongoDB) leveraging Mongoose's features for efficient data management, resulting in 15% reduction in query response times

[**Enterprise Resource Planning System**](https://github.com/akaidecember/Team-Incognito---ERP)**,** CSUS Dec 2021

* Designed and packaged scalable ERP solution for SMEs, prioritizing user needs and efficient operations
* Implemented secure, MVC based, three-tiered architecture, ensuring role-based access control for data security
* Utilized Java with Swing GUI for the ERP system front-end and MySQL database for efficient backend operations