Sameer Mankotia

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Education:

Ph.D. Computer Science — Expected Dec 2027
University of Idaho, Moscow ID

Bachelor of Science in Computer Science — Dec 2023
University of Idaho, Moscow ID

Skills:

- C++, Python, C#
- MySQL, SQL
- HTML, CSS, JavaScript, TypeScript
- Flask, Django, React
- Laravel, jQuery
- Jira, Azure, Confluence
- OOPs
- SLDC
- Git and GitHub, bitbucket
- Linux, UNIX, PowerShell
- Networking
- React, Node.js
- Postman, Insomnia
- Jest, Playwright
- NUnit Testing
- Assembly

Experience and Involvement:

Research Assistant — Jan 2024 – Present
University of Idaho | Moscow, ID

- Developed a comprehensive RISC-V instruction set simulator in Python for **Schweitzer Engineering Laboratories,** implementing a 64-bit / 32-bit register set and various RISC-V instructions including arithmetic, logical, and control flow operations.
- Designed and implemented a Python-based testing framework for the simulator, creating extensive unit tests to ensure accuracy and reliability of each instruction's implementation as part of a project sponsored by Schweitzer Engineering Laboratories.
- Leveraged object-oriented programming principles in Python to create a modular and extensible architecture, allowing for easy addition of new instructions and features, contributing to the project goals set by Schweitzer Engineering Laboratories.
- Implemented bitwise operations and handled complex scenarios such as overflow, underflow, and edge cases in arithmetic operations.

Software Developer Intern — Jan 2023 – May 2024
Office Of Information and Technology, University of Idaho | Moscow, ID

- Collaborated with stakeholders to create comprehensive and detailed user stories for the MyUI app, with a primary focus on enhancing the MyUI Card functionality.
- Managed tasks and sprint planning using Jira and Azure DevOps, ensuring efficient tracking and seamless communication among team members.
- Transitioned from story creation to development by implementing MyUI cards for students and staff using React and Node.js, seamlessly integrating with the "Campus Labs" REST API to display dynamic, role-based data.
- Conducted automated testing using Playwright, ensuring the application's reliability and adherence to quality standards.
- Delivered project milestones by combining strong technical documentation skills with effective collaboration in a cross-functional team environment.

Customer Technology Representative — Aug 2022 –Dec 2024
Office of Information and Technology, University of Idaho | Moscow, ID

- Provided timely and effective technical assistance to fellow students, addressing various software and online platform issues, troubleshooting connectivity problems, and guiding users through problem-solving steps.
- Helped students with account management, DUO Administration, University Software support, and Network assistance like Wi-Fi and Ethernet.
- Offered guidance on utilizing various technology resources available on campus, including software applications, online learning platforms, and library databases, ensuring students maximized their access to educational tools.
- Created training materials and comprehensive documentation to simplify technology usage for students, faculty, and staff, promoting self-sufficiency in utilizing campus IT services.

Projects:

Life Cycle Assessment (LCA) and Sustainability Assessment Tool

- Developed a web-based platform for performing Life Cycle Assessment (LCA) using React and TypeScript, offering users a streamlined interface to define goals, scope, and boundaries for sustainability analysis.
- Integrated Jenkins for automating CI/CD pipelines, ensuring seamless deployment and continuous testing of the platform during development.
- Created dynamic features for life cycle inventories (LCI) including database imports/exports and automated sustainability calculations for environmental, economic, and social impact assessments. Utilized Node.js for backend development and implemented the Datadog observability platform to monitor real-time application performance in this yearlong project.

Inventory Management System

- Developed a desktop application using C# and WinForms for real-time inventory tracking, supplier management, and sales report generation.
- Designed intuitive user interfaces and implemented CRUD functionalities for seamless data management.
- Wrote NUnit tests for unit-level validations to ensure reliability.
- Integrated a database backend with MSSQL, enabling efficient data storage and retrieval for all operations.

Cloud Point

- Engineered a web application integrating Google Maps API and weather data services, providing users with real-time meteorological information overlaid on interactive maps.
- Implemented a responsive front-end using React and Handlebars, ensuring a seamless user experience across various devices and screen sizes.
- Developed a robust back-end infrastructure using Node.js, facilitating efficient data processing and API integration, while incorporating additional weather-related functionalities to enhance user utility.

Achievements/Awards:

- Awarded ‘Best Student Employee Award’ as a Software Developer Intern for OIT for 2024-25.
- Awarded ‘Outstanding Senior Year Award’ for the year 2023-24.

Certifications:

- C# Certification from Hacker rank.
- Front -End Developer (React) Certified from Hacker rank.
- REST- API Intermediate certification.