Hetang Mehta

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Summary

Computer Engineering Student with experience in building distributed systems, cloud computing, and scalable web applications. Proficient in Python, C++, Java, SQL, JS and cloud platforms (AWS, Azure).

Technical Skills

Languages: Python, C++, C#, VB, JavaScript, Java, Swift, MatLab, React JS, SQL, Blazor

Frameworks: Node.JS, React.JS, SpringBoot, Blazor, .NET, Selenium, TensorFlow, Pandas, Git, DevOps, Azure, AWS

Concepts: Object-Oriented Programming (OOP), Data Structures & Algorithms, Distributed Systems, Multithreading, Operating Systems, REST API Development, Software Testing & Debugging, Agile Development, Scalability & Fault Tolerance

Professional Experience

Canadian Natural Resources Limited - CNRL

Jan 2024 - Present

Software Developer Student

- Built and optimized a fault-tolerant, large-scale distributed visual analytical PWA from scratch with cloud integration using .NET, Blazor, C#, PL/SQL, and APIs, and deployed it via CI/CD Azure pipelines. The app enabled 500+ engineers in access/manage well production data, boosting operational efficiency by 30%.
- Refactored a legacy Oracle PL/SQL architecture, reducing quarterly bug occurrences by 33% and optimizing database performance, resulting in 3x lower maintenance costs.
- Implemented 300+ automated unit tests using the .Net Test Suite for critical budgeting calculations, resulting in reducing testing time from 10 days to 4 minutes and increasing software reliability and efficiency.
- Converted a legacy VB.NET desktop application (MAWL) into a cloud-based PWA, eliminating dependency on Windows 10 virtual machines and streamlining well data access for engineers.
- Developed budgeting procedures and UI enhancements from scratch in VB.NET and Oracle PL/SQL, enabling senior management to make informed business decisions and improving profit estimation accuracy while enhancing user experience.
- Developed bug fixes using CI/CD pipeline to resolve critical production issues, which improved overall application stability and reduced downtime.

Suncor Energy Sep 2023 – Dec 2023

Engineering Intern

- Developed automation tools using Python, which resulted in saving 30 hours of work for tasks such as maintaining, updating, creating and manipulating data within SAP.
- Built interactive data visualizations using Python and Power BI to support teams in making data-driven decisions.
- Processed large datasets with Python, VB, and Excel, ensuring high data quality and compliance with corporate standards therefore, improving the reliability of subsequent analyses.

Projects

Boxed [GitHub Repo] Feb 2025

• Developed a scalable cloud-based storage application using React.JS, SpringBoot and AWS – EC2 & S3, enabling secure file uploads and real-time document sharing.

Improv Tales [GitHub Repo]

Feb 2025

• A multiplayer story telling web game for 3-5 players. It uses sockets to allow concurrent gameplay and connecting friends/players across the internet.

Leadership Experience

Intern Social Committee at CNRL, Communications Coordinator

Jan 2024 - Aug 2024

- Led various cross-team networking/collaboration opportunities for interns at CNRL.
- Managed all communications and assisted in organizing 10+ events alongside the two club presidents.

Computer Engineering Club, PR representative

Sep 2022 - Sep 2023

- Promoted and assisted in organizing GEER week events alongside another PR rep. and two club presidents.
- Responsible for paperwork, registration documents, and coordinating deadlines pertaining to GEER week.

Education

University of Alberta Sep 2021 – April 2027

Computer Engineering, BSc Co-op Program

<u>Relevant Courses</u>: Object Oriented Programming/Software Design (OOP), Data Structures and Algorithms, Formal Systems and Logic, Computer Organization and Architecture, File and Database Management, Microprocessors