Raj Reddy
Salt Lake City, UT

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Education

University of Utah   **Salt Lake City, UT**
B.S. Computer Science   *August 2020 – May 2025*

Relevant Coursework: Computer Systems, Computer Graphics, Algorithms, Software Practice I and II, Database Systems, Computer Networks, Foundations of Data Analysis, Linear Algebra, and Calculus I/II/III.

Skills

Languages: Python, Java, C/C++/C#, JavaScript, HTML/CSS, SQL, Unity

Software: .NET, MAUI, Agile, React, AWS, Node.js, Git, Flutter, Azure, Linux/Unix, LINQ, MySQL, Qt

Experience

University of Utah   **Salt Lake City, UT**
Undergraduate Research Assistant - VAAST Lab   *May 2024 – Present*

- Integrated head tracking technology using Unity and Meta Quest to analyze and improve understanding of seizure patterns in patients, contributing to research on seizure conditions and potential treatment insights.
- Utilized data tracking systems, enhancing research capabilities for immersive studies and visual perception.

Undergraduate Research Assistant - FuTURES Lab   *May 2024 – Present*

- Analyzed large datasets to identify and test software configuration options, increasing code coverage by 30% using tools like gcov and CMake on real-world libraries (e.g., libxml2, libpng).
- Actively improving code coverage for a larger portion of Google's OSS-Fuzz library testing by testing APIs using compile-time options.

Software Development Intern - Identity and Access Management Team   *Aug 2023 – May 2024*

- Improved software security by implementing DUO two-factor authentication in computer university-wide using Python and PowerShell.
- Developed and automated Python-based data analysis workflows across 50+ Windows machines to assess cybersecurity threats and calculate risk probabilities, significantly improving the university's ability to detect and mitigate vulnerabilities.

HEXstream   **Chicago, IL**
Software Engineering Intern   *May 2022 – August 2023*

- Centralized data systems by integrating 25+ company tools into Microsoft Azure, reducing operational downtime by 20%.
- Developed and fine-tuned MySQL databases, significantly improving data transfer efficiency and operational workflows, which contributed to better data management across the organization.

Projects

Snake Game: Developed the Snake game client-server architecture using C# and MAUI for the GUI. Utilized JSON to manage real-time updates and XML for a modifiable settings file, enhancing game customization.
Learning Management System: Engineered a robust backend system using LINQ and SQL to track and manage students' academic data, including scores, GPAs, class grades, and class averages.
Sprite Editor: Developed a fully-featured Sprite Editor using C++ and the Qt library, allowing users to draw, edit, and save sprites of any size. Included unique features such as customizable grids and undo/redo functionality.