

# Raj Reddy

Salt Lake City

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## Education

**University of Utah**  
B.S. Computer Science

**Salt Lake City, UT**  
August 2020 – May 2025

**Relevant Coursework:** Computer Systems, Computer Graphics, Algorithms, Database Systems, Computer Networks, and Foundations of Data Analysis.

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## Skills

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

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

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## Experience

**University of Utah**  
Undergraduate Researcher - VAAST Lab

**Salt Lake City, UT**  
May 2024 – Present

- Led research efforts to integrate head tracking systems within VR environments, significantly advancing lab capabilities and broadening research applications for immersive visual perception studies.
- Developing and testing Unity-based VR environments to facilitate research on visual perception, spatial audio integration, and field-of-view calibration for enhanced user experience.

Undergraduate Research Assistant - FuTURES Lab

May 2024 – Present

- Built and refined a prototype that identifies and tests software configuration options to improve code coverage, integrated with real-world libraries like `libxml2` and `libpng`.
- Streamlined the process of building and running configuration variants, leveraging tools like `gcov`, `CMake`, and `Autotools` for extensive testing across open-source libraries.

Software Development Intern - Identity and Access Management Team

Aug 2023 – May 2024

- Assisted in the development and testing of software security tools using Python, focusing on application integrity and user access management.
- Additionally, implemented automation by integrating Python scripts into over 50 Windows machines across campus using Windows PowerShell, streamlining administrative processes and enhancing system functionalities.

**HEXstream**  
Software Engineering Intern

**Chicago, IL**  
May 2022 – August 2023

- Engineered the integration of over 25 company tools into Microsoft Azure, centralizing them on a cloud server to streamline operations and enhance system accessibility.
  - Developed and fine-tuned MySQL databases, significantly improving data transfer efficiency and operational workflows, which contributed to better data management across the organization.
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## 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.