

Randy Roberts

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Skills

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

Frameworks & Libraries: React, React Native, Next.js, Node.js, TailwindCSS, Pandas, NumPy, Matplotlib, Gson, JUnit

Tools & Methodologies: Docker, Firebase, MySQL/PostgreSQL, WSL, Unity, Godot, VSCode, IntelliJ/PyCharm, Retool, Git, GitHub/GitLab, Agile/SCRUM, CI/CD

Education

University of Central Florida – BS in Computer Science

2024

Relevant Coursework: Advanced Data Structures and Algorithms; Object-Oriented Software Development; Computer Science I-II; Database Systems; Operating Systems; Systems Software; Calc I-III; Physics I-II; Linear Algebra; Statistics I-II;

Experience

Software Engineer Intern, Alidade Systems

March 2024 – Present

- Worked in a fast-paced startup to rapidly prototype an advanced budgeting application for startups, utilizing Retool for development of both frontend and backend technologies
- Collaborated with other engineers and founders to design key systems responsible for forecasting financial data while also allowing users to view variations of their financial forecast by providing different budgeting scenarios to the software
- **Impact:** Gained real-world experience in an Agile environment while learning best practices for early-stage startups

Web Developer Intern, Arising.co

July 2023 – Dec. 2023

- Implemented and maintained websites using Next.js alongside Tailwind CSS for styling and Firebase for database tasks
- Enhanced code quality by following Next.js best practices, including usage of Next Links, Headers, and Images
- **Impact:** Expanded Full-Stack Development expertise and contributed to upholding Arising's client-driven standards

Projects

Project Delta - Senior Capstone Project

<https://www.youtube.com/watch?v=yj7QvjWBXmw>

- Designed and implemented networking schemas for a 2D fighting game created in the Godot game engine
- Created a network adaptor using the Steamworks SDK to support functionality with the Godot Rollback Netcode Addon
- **Impact:** Finalized scalable networking systems that will continue to be used for the games lifecycle

Moneylang (Hackathon submission)

<https://github.com/RandyRoberts99/Moneylang>

- Constructed a small-scale compiler in WSL using Python for Moneylang, a two-character programming language
- Rapidly designed and implemented a series of compiler layers, including lexer, parser, code generation, and virtual machine
- **Impact:** Refined compiler design knowledge, gained hackathon experience and won 2nd place with a prize of **\$1,000**

Slap Ascension (Multiplayer Roblox Project)

<https://www.roblox.com/games/8617497668/Slap-Ascension-Simulator>

- Designed and implemented multiple gameplay systems in Roblox Studio using Lua, creating a fun gameplay experience
- Utilized Roblox databases for saving player data and used client to server networking techniques to allow for smooth interactions between players
- **Impact:** Achieved **1.1 million** downloads, maintaining an average of **100k** downloads per month

VRChat Minigames (Multiplayer Social Game)

- Created automated versions of common party games using C# in Unity for VRChat, a multiplayer platform
- Demonstrated expertise in VRChat Udon networking and created optimized systems tailored to the environment
- **Impact:** Completed a commissioned project for a prominent VRChat developer with **2000+** Patreon supporters