Randy Roberts

randyro1999@gmail.com | github.com/RandyRoberts99 | linkedin.com/in/randy-roberts/

Skills

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

Frameworks & Libraries: Node.js, React, React Native, Next.js, Express.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

> **Relevant Coursework:** 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

- Rapidly prototyped an advanced budgeting application to be used by the companies first clients by utilizing Retool in conjunction with JavaScript for development of both frontend and backend technologies
- Designed key systems responsible for forecasting financial data to users that will be the primary interface users interact with by collaborating with other engineers and product leads
- Iterated on existing budgeting systems to allow for both horizontal and vertical scaling of financial data by constructing an advanced tree-like data structure
- **Impact:** Finalized multiple systems that will be showcased in product demos for potential business partners

Web Developer, Intern – Arising.co   July 2023 – Dec. 2023

- Implemented and maintained websites for clients and partners of Arising using Next.js alongside Tailwind CSS for styling and Firebase for database tasks
- Enhanced code quality to ensure proper optimizations are made on web pages by following Next.js best practices, including usage of Next Links, Headers, and Images
- **Impact:** Delivered essential services and websites to clients while upholding Arising's client-driven standards

Freelance Game Developer – Roblox   Jan. 2022 – Jan. 2023

- Created Slap Ascension, a largely successful game on the Roblox platform using Roblox Studio and Lua
- Secured transactions, and saved player data to create a safe and reliable experience for players by implementing systems that use Roblox API and database services
- Reduced network latency to allow for smooth interactions between players by utilizing client to server networking techniques such as minimizing network traffic, and client-side processes
- **Impact:** Achieved **1.1 million** downloads, maintained an average of **100k** downloads per month and generated roughly **$15,000** in total revenue on the Roblox platform

Projects

Project Delta - Senior Capstone Project   YouTube Demo

- 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)   Repository Link

- Designed and constructed Moneylang, a two-character programming language by creating a small-scale compiler in Python
- Rapidly created a series of compiler layers, including lexer, parser, code generation, and virtual machine
- **Impact:** Won 2nd place with a prize of **$1,000** while refining compiler design knowledge and gaining hackathon experience

VRChat Minigames (Multiplayer Social Game)

- Automated versions of common party games for VRChat, a multiplayer platform similar to Roblox using C# in Unity
- Optimized networking systems to account for common pitfalls of VRChat by using their networking schema Udon
- **Impact:** Completed a commissioned project for a prominent VRChat developer with **2000+** Patreon supporters