

Zachary Ruiz

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EDUCATION

University of California, Riverside

Bachelor of Science in Computer Engineering

Riverside, California

Sep. 2021 – Dec 2023

EXPERIENCE

Software Engineer Intern

UCR Brain Game Center

Riverside, California

Aug. 2022 – Current

- Developed eye tracking tools for cognitive research using C# and the Tobii pro SDK
- Developed eye tracking tools for cognitive research using C# and the Meta Quest pro SDK
- Developed JSON logging scripts for research data using C# and JSON Lite

PROJECTS

Bored Ape Escape | PostgreSQL, ExpressJS, ReactJS, NodeJS

May. 2023 - Jul. 2023

- Developed a full stack ecommerce web application with ExpressJS serving a REST API with React as a frontend
- Uses Stripe API for mock payment processing

Fitness Buddy | MongoDB, ExpressJS, ReactJS, NodeJS

Mar. 2023 - Apr. 2023

- Developed a full stack fitness tracker web application with NodeJS/ExpressJS serving a REST API with React as a frontend
- Authorization implemented using JSON Web Tokens

RPG Project | Unity3D, C#

Dec. 2021 - Current

- Developed pathfinding, branching dialogue, a quest system, inventory system, melee and firearm combat systems, character customization, saving and loading systems, and a custom cutscene system

Procedural Generation Project | Unity3D, C#

Dec. 2022 - Jan. 2023

- Developed Simplex Noise image generator using Unity's burst compiled jobs system
- Developed a procedural island image generator using multiple Simplex Noise textures and image filtering techniques (bilateral filter, contrast adjustment, brightness adjustment)
- Developed world generation scripts using island texture generator as input

TECHNICAL SKILLS

Languages: C++, C#, NoSQL (MongoDB), JavaScript, HTML/CSS, PostgreSQL

Frameworks: React, Node.js, ExpressJS, Unity3D

Tools: Git / Github, VS Code, Visual Studio, Postman, Heroku

Libraries: React Router, Apex Charts