Zachary Ruiz

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EDUCATION

University of California, Riverside   **Riverside, California**
Bachelor of Science in Computer Engineering   *Sep. 2021 – Dec 2023*

EXPERIENCE

Software Engineer Intern   **Riverside, California**
UCR Brain Game Center   *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

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
Frameworks: React, Node.js, ExpressJS, Unity3D
Tools: Git / Github, VS Code, Visual Studio, Postman
Libraries: React Router, Apex Charts