# **Zachary Ruiz**

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### **EDUCATION**

# **Bachelors of Science in Computer Engineering**

University of California, Riverside · Riverside, CA · 2024

### **EXPERIENCE**

# **Software Engineer Intern**

**UCR Brain Game Center** 

August 2022 - Present, Riverside, CA

- 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**

May 2023 - July 2023

- Developed a full stack eCommerce website with Express.js serving a REST API with React as a frontend.
- Utilized Stripe API for mock payment processing.
- Hosted PostgreSQL database using AWS.

## **Fitness Buddy**

March 2023 - April 2023

- Developed a full stack fitness tracker web application with node and Express serving a REST API with React as a front end.
- · Implemented security features such as JSON Web Tokens, password hashing using bcrypt, and rate limiters.
- $\cdot$  Hosted MongoDB database using Mongo Atlas.

## **Procedural Generation Suite**

December 2022 - January 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.

### **SKILLS**

JavaScript, React, HTML, CSS, Express, PostgreSQL, MongoDB, C++, C#, node, Unity, Git, Github, Postman