

Joshua Ha

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EDUCATION

• University of California Riverside

2023 - 2027

BACHELORS OF SCIENCE (B.S) IN COMPUTER SCIENCE CANDIDATE

Riverside CA, US

- GPA: 3.71/4.00

EXPERIENCE

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UCR Highlander Formula SAE Racing Team

November 2023 - Present

Battery Management Unit Test Engineer Intern

Riverside CA, US

- * Gained hands-on experience in developing and testing C/C++ applications
- * Utilized Renode, Zephyr RTOS, and STM32Cube IDE to simulate and manage embedded systems for battery management solutions
- * Collaborated in a team on the integration and debugging of embedded software

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ACM UCR Hackathon Software Engineering Team

March 2023 - Present

Hackathon Software Engineering Intern

Riverside CA, US

- * Utilized Git for version control to manage and update a collaborative Github repository
- * Developed and maintained front-end components for web applications
- * Contributed to and enhancing website features using Tailwind CSS, TypeScript, and Poetry (Python)

PROJECTS

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Matrix Breakout - Atari Breakout played autonomously

July 2023 - August 2023

Tools: Python, PyTorch, OpenAI Gym, OpenCV, NumPy



- * Developed a neural network using an Actor-Critic architecture to autonomously play the game Atari Breakout
- * Implemented an asynchronous advantage actor-critic (A3C) model, leveraging a combination of convolutional layers and LSTM for temporal learning of the game environment
- * Trained the AI agent using an Atari Gym environment, optimizing performance through experience replay and softmax-based action selection
- * Designed a shared Adam optimizer for efficient gradient sharing between multiple agent instances

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Let Us Cook - Recipe Organizer Project

July 2024 - August 2024

Tools: HTML, CSS, Bootstrap, C++, Python Flask, Spoonacular API



- * Implemented user registration, login, and profile management using C++ for back-end
- * Designed and handled back-end logic for creating, reading, updating, and deleting recipes
- * Managed data interactions and dynamically rendered recipe details using Flask templates
- * Integrated the Spoonacular API for enhanced recipe search functionality
- * Collaborated on front-end development using Bootstrap for responsive design and React.js for interactive components

TECHNICAL SKILLS

- **Programming Languages:** Python, C++ R, SQL, Java
- **Web Development:** HTML, CSS, JavaScript
- **Database Systems:** MySQL Workbench, DBeaver, PostgreSQL
- **Data Science & Machine Learning:** NumPy, Pandas, Matplotlib, Scikit-Learn
- **Version Control:** GitHub, GitLab

CERTIFICATIONS

- **AP Capstone Diploma** *Certified Completion Received July 2023*
- **Learning SQL** - LinkedIn Learning *September 2023*
- **The Complete Python Bootcamp from Zero to Hero in Python** - Udemy *June 2021*
- **Python for Data Science and Machine Learning Bootcamp** - Udemy *July 2023*