

# Garrett Geesink

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## Education

### University of California - Riverside

Riverside, California

*Master of Science in Computer Science*

*June 2023*

*Bachelor of Science in Computer Science*

*June 2022*

Cumulative GPA: 3.89; *magna cum laude*

Relevant Coursework: Software Engineering, Software Testing, Parallel Programming, Data Mining, Databases, Machine Learning, Artificial Intelligence, Computer Security, Data Structures, Embedded Systems, Virtual Reality

## Technical Skills

**Languages:** C++, Python, JavaScript, Java, C#, React, HTML, CSS, SQL, Scala

**Developer Tools:** Git, Github, VSCode, GoogleTest, Mocha, CMake, Valgrind, Unity, Qt, Linux, Figma, Maven, Scala

**Technologies:** Node.js, Express.js, MongoDB, Vercel, Oculus SDK, HTTP

## Experience

### UC Riverside

Riverside, California

*Teacher's Assistant*

*September 2022 – June 2023*

- Conducted labs on Agile, UML, SOLID principles, and version control using **C++**.
- Taught students how to test and maintain software using Continuous Integration, GoogleTest, Gcov, and Valgrind.
- Provided feedback on 40+ GitHub software projects for 200+ students.
- Conducted labs on virtual reality software construction using **Unity**, **C#**, and **Oculus Rift**.
- Advised 20+ virtual reality software projects for 60+ students.

### Horita

Capistrano Beach, California

*IT Specialist*

*February 2019 – March 2021*

- Developed inventory management software to keep track of parts using **Excel VBA**.
- Maintained computers and server systems running on **Microsoft SQL Server** and **Batch**.
- Improved security of company website and reduced bot traffic using **Google reCAPTCHA v3**.

## Projects

**TypeFight** | *JavaScript, React.js, Node.js, Express.js, MongoDB* [github.com/UCR-CS110/final-project-typefight](https://github.com/UCR-CS110/final-project-typefight)

- A competitive typing speed website with user profile pages, global rankings, commenting, and follower lists.
- Designed Front-end client in Figma and implemented design using **React.js**.
- Developed Back-end **Node.js** server using **Express.js** to handle http requests and **MongoDB** to store data.

**Verne** | *Unity, Oculus, C#*

[chatmansave.itch.io/verne](https://chatmansave.itch.io/verne)

- An educational program that teaches virtual reality concepts in a VR environment.
- Created modules for VR locomotion, motion sickness prevention, object manipulation, quaternions, and Snell's law.

**UCR CompSci Discord** | *Python, JavaScript, React.js, Next.js, Vercel, JSON*

[ucr-cs.vercel.app](https://ucr-cs.vercel.app)

- Discord community for 1700+ Computer Science and Computer Engineering students at UCR.
- Developed a Discord bot to help manage server roles and activities using **Python**.
- Deployed a website for the server using **GitHub**, **Vercel**, and **React.js**.
- Awarded Most Creative Use of GitHub at the CitrusHack 2022 Hackathon.

**Dungeon Designer** | *C++, GoogleTest, Valgrind*

[github.com/AaronGeesink/Tabletop-RPG-Dungeon-Designer](https://github.com/AaronGeesink/Tabletop-RPG-Dungeon-Designer)

- Program for randomly generating dungeons using different generation algorithms.
- Designed using AGILE methodologies and fully tested using GoogleTest and Valgrind.

**Tiling Puzzle AI** | *Python*

[github.com/AaronGeesink/Bubble-Puzzle-AI](https://github.com/AaronGeesink/Bubble-Puzzle-AI)

- Depth-limited search algorithm that finds solutions to a tiling puzzle.

**Feature Selection AI** | *C++, GoogleTest*

[github.com/AaronGeesink/Feature-Selection-AI](https://github.com/AaronGeesink/Feature-Selection-AI)

- Program that quickly determines optimal class labels for data classification given any labeled data set.
- Uses nearest neighbor, k-fold cross validation, and forward elimination algorithm to traverse the search space.