# Carson Rottinghaus

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#### **EDUCATION**

#### University of Missouri-Columbia

Columbia, MO

December 2022

Computer Science, BS

- GPA: 3.4
- Software Engineering courses focused on collaboration with development life cycles and version control
- Web Development courses focused on Angular, Firebase, and live deployment
- Database management courses focused on SQL
- Unix courses focused on Unix-like systems, command line syntax, and bash scripting
- General programming courses focused on learning libraries and frameworks in C, C#, Python, and Java
- Game development courses focused on Unity3D
- General computer science courses focused on data structures and algorithms

#### Work Experience

Oracle Cerner Kansas City, MO

Software Engineer Internship

Summer~2022

- Lead daily stand-ups to compile a report to communicate progress between teams
- Worked to create realistic and modular mock data to use in testing scenarios
- Utilized Java, LoadRunner, Selenium, and Fiddler to create and analyze simulations within a JVM environment
- Utilized SQL Server Management Studio (SSMS) to create SQL queries that involved populating, restoring, and analyzing data
- Collaborated with software development teams to discuss new technologies and improve the testing process
- Gained experience in quickly learning and operating new libraries, frameworks, and internal tooling within an agile development cycle

#### Projects

#### Personal Portfolio | Angular, TypeScript, HTML, SCSS, Firebase, GSAP

- A portfolio webpage made to showcase my programming projects with source code and live deployments
- Implemented Firebase support for user feedback
- Utilizes GSAP for custom animations and parallax scrolling
- All projects listed on my resume (and more) at https://carsonquiason.github.io/

# ${\bf Chat}\ {\bf App}\ |\ {\it Angular,\ TypeScript,\ HTML,\ SCSS,\ Firebase}$

- A real-time messaging application with support for Google Authentication, Google Maps API and Giphy API
- Implemented Firebase to store chat and user data
- Stored chat room data in an array based document to reduce Firebase document reads and overall storage costs
- Utilizes Angular Guards and Firebase Rules to ensure authentication security

# Rocket League AI | Python, Stable Baselines, TensorBoard, RLGym

- A Reinforcement Learning Rocket League AI trained with a PPO algorithm
- Worked in a team with a RAD development life cycle
- Analyzed TensorBoard graph data to create solutions for sub-optimal bot behavior
- Converted AI from RLGym framework to RLBot framework to allow for user testing

## NBA Report | WPF .NET, C#

- An application which utilizes NBA APIs to gather various information about live NBA games and NBA Players
- Utilizes multi-threading for seamless updates and follows an MVC design pattern

## TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, Java, C#, C, LUA, SQL, 68HC11 ASM, HTML, SCSS/CSS

Front-End: Angular, JavaFX, WPF .NET, Unity3D, GSAP Back-End: Firebase, MySQL, PHP, phpMyAdmin, SSMS

Other Tools: Git, Amazon Web Services, Linux Systems, Selenium, LoadRunner, Fiddler