# Jeffrey Lee Kedda

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#### **EDUCATION**

Virginia Tech Blacksburg, VA

# Bachelor of Science in Computer Engineering - Cum Laude

Concentration: Software Systems

Secondary Focus: Networking and Cybersecurity Cumulative GPA: 3.42, In-Major GPA: 3.30

#### Relevant coursework

Data Structures, Applied Software Design, Network Application Design, Video Game Design and Engineering

#### Skills

• C++, C, Linux Operating System, Shell Scripting, Git Version Control, Unreal Engine 5, Perforce Version Control

#### **WORK EXPERIENCE**

Fortitude Technologies

# Computer Science Summer Intern - Backend Developer

- Successfully integrated Twitter and YouTube APIs into a news feed program, enabling users to access real-time updates and videos.
- Applied object-oriented programming in Java, parsing JSON strings from the APIs, and integrated them into a messaging system using RabbitMQ for enhanced functionality.
- Proficiently utilized Git for version control in a team project, making daily commits and facilitating seamless collaboration for
  efficient project management. Ensured a well-organized and up-to-date codebase while effectively tracking progress.

# Three Little Aliens (Indie Game Development Studio)

November 2023 - January 2025

Summer 2019

#### **Unreal Engine Junior Developer**

- In Unreal Engine 5, contributed to the development of two games—a Fighting game and a Rhythm game—by driving core gameplay and feature implementation.
- Implemented game logic using Unreal Engine's Blueprint visual scripting system, enabling rapid prototyping and robust gameplay mechanics.
- Managed a well-documented and organized Perforce repository, establishing structured version control practices to facilitate seamless
  collaboration and effective project tracking.
- Designed Main Menu, HUD, UI, and Leaderboard systems, enhancing user experience and game functionality.
- Collaborated closely with a small team, fostering creativity and delivering polished results under tight timelines.

## PERSONAL CODING PROJECTS

## Mips Assembly Simulator in C++

- Implemented a parser for Mips Assembly instructions using data structures improving the efficiency and accuracy of the program
- Applied both a text user interface with a command line and graphical user interface with Qt, providing flexibility and user-friendliness
- Supported features such as register manipulation, memory access, arithmetic and logical operations, branching, and function calls, ensuring accurate simulation of Mips Assembly programs

# Python TCP Chat Application

- Employed TCP sockets and socket programming to establish robust communication channels, enabling real-time messaging and lobby interactions within the application.
- Developed a user-friendly Tkinter GUI interface for an intuitive user experience, allowing users to effortlessly join and engage in dynamic conversations within multiple lobbies.
- Utilized SQLAlchemy to efficiently manage and store data related to users, lobbies, and messages, ensuring data integrity and enhancing the overall functionality of the chat application.

#### C++ Raylib 3d library Programs

- Developed a solo version of the classic game Yahtzee, implemented using the Raylib 3D library and written in C++ 20. Also, it showcases the use of modern C++ features such as lambda functions and functions from the algorithm standard template library.
- Programmed a survival arcade first-person shooter game in C++ using Raylib framework in a 3D space, implementing features such as player movement, shooting mechanics, and simple enemy AI.