



Cameron Clay

 cameronpclay@gmail.com

 (801) 691-6970

 Lehi, UT, 84043

 <https://www.linkedin.com/in/cameron-clay>

 <https://github.com/CameronClay>

 <https://cc-portfolio-one.vercel.app>

Summary

Motivated software developer, seeking a junior programmer/software engineer position in an environment that values quality and maintainable code.

Education

Bachelor of Computer Science - Utah Valley University, Orem, UT

Aug 2016 - Dec 2020

Honors: *summa cum laude* (GPA: 3.97)

Technical Skills

- C++, C# with .NET framework, Python, C, Rust, Java
- REST APIs, HTML, CSS, TypeScript, JavaScript, React, Next.js, Node.js
- SQL, NoSQL, databases, computer architecture, and computer networks
- Git, Atlassian, Jira, Team Foundation Server
- Docker, Linux, Windows, Visual Studio, Visual Studio Code
- Continuous Integration/Continuous Deployment (CI/CD) and tools such as Bitbucket pipelines, GitHub Actions, and Jenkins
- Unit testing, integration testing, and test driven development
- Object-oriented programming (OOP), programming principles, and software design patterns
- Strong problem solving, debugging, and troubleshooting skills
- CMake, Qt, Boost C++ libraries
- Successful in working in agile environments
- Customer service

Projects

Compiler

<https://github.com/CameronClay/compiler>

- Converts source code into assembly code
- Source code language is based on a hybrid of C# and C
- Supports inheritance, polymorphism, and multithreading
- Tooling: C++ 20, STL, CMake, Boost C++ libraries, vcpkg

Assembler and Virtual Machine

<https://github.com/CameronClay/asm-vm>

- Converts assembly code into bytecode which can be run by the virtual machine
- Based on Reduced Instruction Set Computer (RISC) instruction Set Architecture (ISA)
- Supports multithreading
- Tooling: C++ 20, STL, CMake, Boost C++ libraries, vcpkg

Project portfolio website

<https://github.com/CameronClay/project-portfolio>

- Personal portfolio website featuring my favorite projects

- Features a REST API with JSON web token (JWT) authentication, using a mongodb database (node.js driver)
- Tooling: Next.js, React, Typescript, Tailwind CSS, jest, react-testing-library, msw, and more
- <https://cc-portfolio-one.vercel.app>

Discord bot

<https://github.com/CameronClay/zhex-bot>

- Elo bot for a SC2 arcade game, allows server members to join a queue to play against each other and generates a balanced team matchup based on player skill levels
- Tooling: python, discord.py, pytest

Client-server chat application

<https://github.com/CameronClay/WNLIB-Chat>

- GUI based application similar to IRC, with the ability to connect to a chat server to send and receive messages from server members
- Supports whiteboard
- Tooling: C++, STL, Qt, WNLIB, Win32 API, Google Test, vcpkg

TCP-IP networking library [WNLIB]

<https://github.com/CameronClay/WNLIB-Chat>

- TCP networking library which served as the base for writing a Client-Server chat application. Built using IO-Completion ports which are capable of supporting a large number of clients
- Tooling: C++, STL, Qt, CMake, Win32 API, zlib, vcpkg, Google Test

Dynamic functions library

<https://github.com/CameronClay/cpp-dynamic-functions>

- Library which enables the ability to conditionally call functions at compile time based on the parameters passed, and enables those functions to be stored in statically-typed containers (such as an array/vector/arraylist)
- Tooling: C++ 17, STL, Google Test, Visual Studio

Work Experience

Computer Science Grader - Utah Valley University, Orem, UT

Aug 2019 - Dec 2019

- Graded and provided feedback on students programs, lab exercises, and coding assignments
- Answered students' questions and assisted professor as needed

Front Desk - Comfort Inn, Lehi, UT

June 2016 - Sept 2017

- Answered phone, made reservations, and provided customer service both in person and over the phone
- Performed general maintenance (basic repairs, computer maintenance, and shampooing)
- Assisted housekeeping, maintenance, and the general manager