
Education

South Dakota State University, Brookings, SD

Bachelor of Science in Computer Science, Minor in Software Engineering

- **Expected Graduation Date:** May 2020
- **Current Cumulative GPA:** 3.558
- **Honors:** Dean's List (4 semesters)
- **Activities:** Member and current Vice President of SDSU's Association for Computing Machinery club

Skills and Qualifications

- Languages: (*Proficient*) - **C/C++, C#, Javascript/Typescript, SQL, HTML/CSS** (*Familiar*) - **Java, Python, Assembly**
- Knowledgeable in **Git** and **Azure DevOps** source control.
- Well-practiced with agile development processes, specifically **SAFe (Scaled Agile Framework)**.
- Adept at creating/modifying **SQL** scripts and procedures using **SQL Server Management Studio**.
- Experienced with using **Unity** to code 3D games.
- Skilled with frameworks such as **ASP.NET Core, Angular, Ionic, Bootstrap, and Xamarin**.

Work Experience

Daktronics, Brookings, SD

Software Developer, September 2018 to Present

- Writing production level web applications using ASP.NET Core, C#, Typescript, and MVVM architecture as a student on Daktronics IT Software Development teams.
- Currently on a team developing and maintaining large scale features for existing Daktronics developed web applications used by HR. Involved with planning and developing new Daktronics applications as well.
- Have primarily worked on back-end business logic code handling large pools of employee data and UI design.
- Implemented file upload validators used to preserve data integrity in an employee pay data web application. Created the necessary tables, scripts, and controllers. Designed the file upload section on the UI.

Rise United Media, Brookings, SD

Software Developer, September 2019 to Present

- Currently in a group helping Rise United develop their mobile focused social media application as a senior design capstone project. Implementation will be completed using Xamarin.

South Dakota State University, Brookings, SD

Teacher's Assistant, August 2019 to December 2019

- Helped computer science freshmen learn how to code in SDSU's Intro to Computer Science Lab using Unity to implement a basic game. My job mostly involved helping students with issues in their code, but also included general college and computer science questions as well.

Notable Projects

Visit <https://ahochha.github.io/portfolio> for more projects.

Assembler/Linker Loader, September 2018 to December 2018

- Involved understanding how a computer works at a low level. The assembler used C++ and the linker loader used C#.
- Assembler consisted of two passes. Pass one parsed symbols from an assembly file and opcodes from a data file. After validation, both were loaded into their respective tables and used to increment the program location counter. Pass two generated object code and created the relevant records. The result was then output as an object file.
- The loader processed object files then loaded them into memory. If relocation was needed, object programs were modified so they would have the correct addresses. The linker combined multiple object files.

Monte Carlo Method, December 2019

- Program estimated the value of PI using the Monte Carlo method. Implemented using C.
- Used OpenMP to calculate PI with multiple parallel threads. The number of threads and samples were provided by the user on the command line. The time required to complete the task was tracked and results were displayed to the user.