

# AUSTIN HOCHHALTER

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## EDUCATION

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South Dakota State University, Brookings, SD

**Bachelor of Science in Computer Science, Minor in Software Engineering (Graduated in May 2020)**

- Honors: Dean's List (5 semesters)
- Activities: Member and Vice President (1 semester) of SDSU's Association for Computing Machinery club, CS tutoring

## SKILLS

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- Languages: (*Proficient*) - **C/C++, C#, TypeScript/JavaScript, SQL, HTML/CSS** (*Familiar*) - **Java, Python, Assembly, Pascal, Ada**
- Project Management: **Git, Azure DevOps, Visual Studio, SQL Server Management Studio, SAgE (Scaled Agile Framework)**
- Frameworks/Technologies: **ASP.NET, Angular, Ionic, Xamarin, Bootstrap, Firebase, Unity, Microsoft Azure**

## WORK EXPERIENCE

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Daktronics, Brookings, SD

**Software Engineer**, September 2018 to May 2020

- Worked on user interfaces, APIs, unit tests, and stored procedures with other engineers to improve internal processes.
- Achieved 50% reduction in technician response time to issues on the manufacturing floor by implementing an email notification system that was part of a larger manufacturing escalation application.
- Implemented a pay planning application feature used to ensure competitive pay for remote employees by placing them into a percentile based on the average pay for their market and role.
- Designed the validation architecture for a time off management application by using a server-side microservice that ran the validation before submitting entries to the database.
- Collaborated with users by participating in review sessions to ensure application expectations would match reality.
- Consistently innovated by investigating technologies that would provide business value to the current project.
- Gained agile development experience by participating in bi-weekly sprint planning and review meetings.
- Leveraged knowledge in **ASP.NET, TypeScript/JavaScript, SQL, HTML, CSS, Visual Studio, SAgE, and Web Development**.

Rise United Media, Brookings, SD

**Software Engineer**, September 2019 to May 2020

- Worked in a group to develop features in Rise United's application as a senior design capstone project.
- Designed a user interface that allowed the user to listen to audio content from other users.
- Implemented save and update functionalities to push audio recordings and photos to Azure Blob Storage and other relevant data to a SQL server database.
- Leveraged knowledge in **ASP.NET, XAML, Visual Studio, Microsoft Azure, Xamarin, and Mobile Development**.

South Dakota State University, Brookings, SD

**Teacher's Assistant**, August 2019 to December 2019

- Helped CS freshmen learn how to code in SDSU's Intro to Computer Science Lab using Unity to implement a basic game.
- Leveraged knowledge in **C#, Unity, and Visual Studio**.

## PROJECTS

*Visit [https://bit.ly/demos\\_ahochha](https://bit.ly/demos_ahochha) for video demos of projects.*

**Java Compiler**, January 2020 to May 2020 | **Github Link:** <https://github.com/ahochha/java-compiler>

- The compiler implements common grammar used in Java such as classes, functions, simple expressions, and I/O.
- It parses one character at a time from an input Java program comparing the code it finds to what the grammar expects.
- If an issue is found, an error message is output. Otherwise, it outputs a three-address code (TAC) file and an Assembly file.
- Technologies Used: **C#, Java, Assembly, Visual Studio Code, Git**

**Christmas Cookie Store**, November 2019 to December 2019 | **Github Link:** <https://github.com/ahochha/christmas-cookie-store>

- Built with a heavy focus on the mobile experience and looks.
- Allows the user to select cookies with add-ons, update/remove cookies from the cart, and do a mock checkout.
- Website can be viewed at: <https://ahochha.github.io/christmas-cookie-store/>
- Technologies Used: **TypeScript/JavaScript, HTML, CSS/SASS, Angular, Ionic, Visual Studio Code, Git**

**Monte Carlo Method**, December 2019 | **Github Link:** <https://github.com/ahochha/monte-carlo-method>

- Program estimates the value of PI using the Monte Carlo method.
- It was built to run in a Linux environment and uses OpenMP to calculate PI with multiple parallel threads.
- Technologies Used: **C, OpenMP, Visual Studio Code**

**Assembler**, September 2018 to November 2018 | **Github Link:** <https://github.com/ahochha/assembler>

- The assembler is a multi-pass assembler, meaning data is stored in pass one then used to generate code in pass two.
- It outputs an object file, which can then be used to run the program after it is linked and loaded into memory.
- Technologies Used: **C++, Assembly, Visual Studio Code, Git**