

# Christian Aaron Gould

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## **EDUCATION:** Southern Methodist University

Dallas, TX

Bobby B. Lyle School of Engineering

Grad Date: May 2023

Bachelor of Science in Computer Science

GPA: 3.85

## **RELEVANT COURSES:**

Data Structures, Discrete Math, Fundamentals of Algorithms, Assembly Language, Database Systems, Calculus I & II, Linear Algebra, Intro to Engineering Design, GUI, NLP, Applied ML, Machine Organization

## **TOOLS:**

C++, Java, JUnit, Bash Shell, Python, Shell Scripting, MySQL, XML, HTML, CSS, JavaScript, REACT, Git, Pandas, Mockito, Spring Boot, NumPy, Google Drive API, GitHub Actions, Angular, Typescript

## **SKILLS:**

AWS, Linux, vim, vi, CATCH, TDD, SCRUM, Agile, Feature Testing

## **ENGINEERING PROJECTS:**

### **Search Engine**

Fall 2020

- Wrote a search engine to search for the most relevant terms within a corpus of scientific articles
- Implemented a custom, templated HashMap and AVL-Tree data structure for an inverted file index
- Used term frequency analysis to return more relevant results of a search to a user for 100,000 articles
- Integrated the use of binary operators such as OR, NOT, AND in the terminal UI for the user to search with

### **ENGR 1357 Vending Machine**

Fall 2021

- Implemented a control system for a maker lab hardware vending machine in a classroom setting
- Produced a platform that used a Raspberry Pi for UI and backend, while using Arduino for motor control
- Designed team accounting software for hardware distribution to over 120 students via Google Drive API

### **Ranch Management Website**

Spring 2022

- Worked in a group to implement a website for the management of animals and ranch-related events
- Created the project in JavaScript and REACT for the frontend, using Nodejs for the backend with MySQL
- Deployed the project to an AWS EC2 instance with CI/CD, and made it publicly accessible on the internet

## **EXPERIENCE:**

### **McKesson, Autonomy and Mobility Software Engineering Intern, Irving, TX**

Summer 2021

- Participated in daily standups of a SCRUM AGILE environment in a team of 7 Software Engineers
- Added source code to the main codebase of ESIT Core, McKesson's multi-purpose data streamlining service
- Implemented a logging diagnostic utility using Context Dependency Injection
- Formed various JUnit tests to meet specific acceptance criteria

### **Capital One, Software Engineering Intern, Plano, TX**

Summer 2022

- Participated in daily standups of a SCRUM AGILE environment in a team of 5 Interns
- Added source code to DocViewer, Capital One's management platform for auto loan funding
- Deployed a microservice utilizing an OCR API to enable word searching in scanned documents
- Wrote regex and logic to mask personal information from stored data and data traffic
- Completed end-to-end testing with feature testing deployed to Sandbox
- Edited production-level code in Angular to add new components necessary for the searching process
- Reviewed and processed over 60 pull requests for various features and changes

### **Lyle School of Engineering, Teaching Assistant, Dallas, TX**

Aug 2020 – Current

#### **- Introduction to Engineering Design**

- Mentored multiple teams each semester in leadership and interpersonal communication development
- Monitored the teams' progress on meeting deadlines, and assisted with technical and leadership issues
- Led student team retrospectives after completed sprints
- Debugged various Electrical circuits and Arduino C code on a robot that students build from scratch

#### **- Data Structures / Principles of Computer Science**

- Taught students in lab periods about various topics in software, including best practices and concepts
- Assisted students in debugging any errors they run into while completing projects
- Assisted professors in grading and evaluating students, teams, and their projects