

Dustin J. McDowell

Lexington, SC | 719-644-5712 | dm99@email.sc.edu

SUMMARY

I am seeking a software engineering internship at a company that will enable me to build stable, user-friendly applications. With training in software development, algorithm design, and artificial intelligence, I am eager to contribute to innovative projects and achieve long-term career growth in the tech industry. I am passionate about solving and understanding technical problems.

SKILLS

- Programming languages: C#, C++, C, JavaScript, TypeScript, Go, Python, SQL
- Frameworks: ASP.NET Core MVC, ASP.NET Core Web API, React, jQuery, Node.JS, Express.JS
- Databases: PostgreSQL, Oracle, MySQL, MS SQL Server
- Tools: Bash (Unix command line), Git, Vim, Visual Studio, Visual Studio Code, Linux

EDUCATION

University of South Carolina, Columbia, SC December 2026

M.S., Computer Science

Relevant Coursework: Analysis of Algorithms, Artificial Intelligence, Deep Reinforcement Learning (planned), Network System Security (planned)

Degree GPA: 4.0

Brigham Young University, Provo, UT April 2016

Master of Accountancy, Accounting Information Systems Certificate

Bachelor of Science, Accounting

Git Hub Profile: <https://github.com/dusmcd>

LinkedIn Profile: <https://www.linkedin.com/in/dustin-mcdowell/>

EXPERIENCE

Tata Consulting Services, Chicago, IL

Software Developer

September 2018-May 2019

- Developed API endpoints and business logic for an enterprise-level insurance system using the C# language in the ASP.NET Web API framework
- Assisted other developers in creating API services, and coordinated relevant steps with the development team to ensure code was being properly integrated and maintained
- Created SQL stored procedures in Oracle database environment to ensure efficient retrieval and insertion of data

University of South Carolina, Columbia, SC

Graduate Teaching Assistant, Computer Science

August 2025-Present

- Tutor undergraduate students on principles of computer programming and web design

KPMG, Chicago, IL

Tax Associate

October 2016-April 2018

Various Accounting Positions, Various Locations

Accountant

March 2020-June 2023

- NorthPoint Development (Kansas City, MO; September 2022-June 2023)
- Aduro Advisors, LLC (Remote; June 2021-September 2022)
- Wishing U Well, Inc. (Colorado Springs, CO; March 2020-June 2021)

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PROJECTS

McScript Interpreter

Programming Language Interpreter

March 2025-June 2025

GitHub Repository: https://github.com/dusmcd/mcscript_v3

- Basic functionality:
 - Performs lexical analysis of source code by tokenizing relevant symbols
 - Creates abstract syntax tree from given tokens
 - Evaluates statements and expressions through walk of syntax tree
- Key takeaways:
 - Implementation of a sophisticated parsing algorithm (Pratt parsing)
 - Increased understanding of modern C++ features (e.g., smart pointers, abstract classes)
- Programming language: C++
- Approximately 5,200 lines of code
- Memory is managed through author-defined garbage collector

McScript Interpreter (Virtual Machine Implementation) *In progress*

Programming Language Interpreter (Compiler)

June 2025-Present

GitHub Repository: https://github.com/dusmcd/mcscript_vm

- Basic functionality:
 - Performs lexical analysis of source code by tokenizing relevant symbols
 - Creates abstract syntax tree from given tokens
 - Compile syntax tree nodes to byte code
 - Execute chunks of byte code through virtual machine
- Key takeaways:
 - Increased understanding of the use of recursion in implementing more complex algorithms
 - Deeper understanding of memory management: using pointer arithmetic to manage the call stack, memory clean up algorithms used for the syntax tree
- Programming language: C
- Approximately 4,500 lines of code