

# Melissa George

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## EDUCATION

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### University of Michigan

Ann Arbor, MI

#### *B.S. Computer Science & Mathematics*

Expected — April 2019

- Computer Science concentrations in Software Systems and Computer Security
- Mathematics concentration in Discrete and Algorithmic Methods
- Relevant Coursework: Operating Systems, Computer Architecture, Computer Security, Algorithms, Data Structures, Cryptography, Discrete Mathematics, Theory of Computation, Graph Theory & Combinatorics, Probability, Statistics, Linear Algebra, Analysis, Calculus I-IV
- University Honors, all semesters; James B. Angell Scholar, March 2018
- GPA: 3.835

## EXPERIENCE

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### CME Group

Chicago, IL

#### *Software Engineering Intern*

May 2018 - Present

- Worked on the Identity and Access Management team, learning about the security principles involved and the enterprise applications used to manage identity and protect information
- Wrote PowerShell scripts for disabling dormant accounts and creating and updating groups in Active Directory and in eDirectory
- Built a SailPoint workflow for guiding new employees in requesting access to applications using BeanShell

### EECS 280 — Programming & Data Structures

Ann Arbor, MI

#### *Instructional Aide*

September 2017 - April 2018

- Taught a weekly lab section, held office hours, helped to write and grade exams
- Reinforced concepts from lecture including C and C++ style abstract data types, inheritance, polymorphism, arrays, linked lists, binary search trees, recursion, and exceptions
- Demonstrated the use of software development tools like Git, gdb, Make, Valgrind, and IDEs

### CME Group

Chicago, IL

#### *Software Engineering Intern*

May - August 2017

- Collaborated with an Agile development team to transition a legacy web application from GWT to AngularJS
- Improved previously implemented error-handling methods in JavaScript
- Debugged Java processes to correct user-reported errors
- Wrote SQL queries for data scientists

**UM Academic Success Program**

Ann Arbor, MI

*Math & Computer Science Tutor*

September 2016 - April 2017

- Helped students to develop their mathematical intuition and algorithmic thinking skills
- Taught students to program, test, and debug simple programs in MatLab & C++

**UM Departmental Computing Organization**

Ann Arbor, MI

*Computer Consultant*

July - August 2016

- Performed troubleshooting of technical issues for EECS students and faculty
- Learned myriad skills relating to Bash scripting, system administration, and hardware

**UM Women in Science & Engineering**

Ann Arbor, MI

*Robotics Instructor/ Summer Camp Leader*

June - July 2016

- Taught basic programming skills to high school students using Lego robots and a C-like programming language

**UM Molecular & Integrative Physiology**

Ann Arbor, MI

*Undergraduate Research Assistant*

October 2015 - April 2016

- Performed experiments, collected data, and analyzed results in order to study the roles of different proteins in the nervous system

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**PROJECTS****Network File Server**

April, 2018

Worked on a team of three to implement a network file server which serviced requests from clients to create, modify, read, and delete files. The server listened for messages from clients, parsed and validated requests, serviced requests, and returned messages to clients. Learned about networking protocols, file systems, and programming with sockets.

**Thread Library**

February, 2018

Worked on a team of three on a thread library which handled concurrent programs running on multiple processors. Learned about concurrency, mutex locks, and condition variables.

**Assembler/ Linker Simulator**

October, 2017

Implemented a program which simulated the assembly and linking steps of compiling programs written in a toy assembly language.

**Sudoku Solver**

April, 2017

Wrote a program which solved Sudoku puzzles using a backtracking algorithm.

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**SKILLS****Programming Languages**

Very skilled at: C, C++

Also familiar with: Python, Java, SQL, PowerShell, Bash, JavaScript, HTML/ CSS

**Development Tools**

Git, gdb, Valgrind, Make, Xcode, Eclipse, PowerShell ISE