Matthew J. Martin

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Education

Colby College, Waterville, ME **Bachelor of Arts, May 2018**
Majors: Government and Computer Science **GPA: 3.83/4.00**
Minor: Mathematics
Honors: Cum Laude, Distinction in Computer Science,
Dean's List: Fall 2014, Fall & Spring 2015, Fall & Spring 2017
Advisors: Walter Hatch, Government and Bruce Maxwell, Computer Science

Research Experience

Political Science Research

Case Study: Internet Voting in Estonia, *Sole Researcher* **2018**

- Investigated the strengths and weaknesses of Estonia's Internet voting infrastructure.
- Determined the primary factors that contributed to the success of Internet voting in Estonia, and examined how they might be applied to other countries.

Election Cybersecurity in the United States, *Sole Researcher* **2017**

- Conducted a detailed analysis of the security of voting technology in the United States.
- Identified the major shortcomings of voting machines and voter registration systems, and provided recommendations for addressing them.
- Resulted in a paper and oral presentation.

Computer Science Research & Projects

Multi-floor Wheeled Robot, *Co-Developer* **2017**

- Wrote the software to control a wheeled robot that could access multiple floors of a building by finding an elevator with the help of a person.
- The process involved human-robot interaction, face recognition, color following, and line detection to achieve its goal.

Bantam Java Compiler and Optimizer, *Team Member* **2017**

- A compiler and optimizer written from scratch for compiling a subset of the Java language, called Bantam Java

Augmented Reality Chess, *Sole Developer* **2017**

- An AR chess game written in C++ that allows two users to play the game by physically selecting and moving virtual pieces while the entire board and pieces are projected digitally on to a video stream.

Better Predictors for Issue Lifetime, *Lead Researcher* **2016**

- Developed a simpler and more accurate method of predicting issue lifetime in software projects than the current state of the art using machine learning optimizations and careful feature selection.

Line Following Robot, *Co-Developer* **2016**

- A robot made to accomplish a few tasks involving following lines taped on the floor, implemented in Python.

Coin Counter, *Co-Developer* **2016**

- A Matlab program that takes in an image of several small objects (including coins) on a tabletop, segments and classifies each object in the scene, and outputs the total amount of money present.

Colby College Computer Science Department Website, *Co-Developer* **2016**

- Redesigned and now maintaining the official department website for Colby CS: cs.colby.edu.
- Rebuilt the site from scratch, and it is now accessed by every computer science student at Colby on a daily basis.

Employment

Software Developer Engineer II, **Amazon** **September 2018 - present**

- Worked on a team responsible for creating a virtual model of every item that Amazon sells.
- Mentored interns and new hires, wrote technical design documents, and implemented core components of this new 'virtual item model' software architecture.

Software Development Engineering Intern, **Amazon** **May - August 2017**

- Worked with experienced engineers developing Amazon's "vision tunnels" image processing algorithm for sorting packages.

Undergraduate Researcher, **North Carolina State University** **May - August 2016**

- Worked with Dr. Tim Menzies researching hypotheses from industrial partners, mainly focusing on the "Better Predictors for Issue Lifetime" project.

Teaching Assistant, **Colby College Computer Science Department** **February 2015 - May 2018**

- Assisted students with their computer science projects during and outside of class.

Coding Skills

Skilled in:

- Java
- Python
- R
- HTML/CSS

Experience with:

- Git
- Matlab
- C/C++
- React

Familiar with:

- Javascript/jQuery
- MySQL
- PHP
- Linux, Windows

Organizations

Member, Seattle Bike Brigade **2020 - present**
Member, Amazon Employees for Climate Justice **2019 - present**
Member, Colby College, Women in Math and Computer Science **2016 - 2018**
Member, Colby Hackers **2015 - 2018**
Member, Colby College Class Council **2015 - 2018**
Member, Colby College Ultimate Frisbee **2017 - 2018**
Member, Colby College Men's Tennis **2014 - 2017**