Matthew J. Martin

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Education

Colby College, Waterville, ME   **Bachelor of Arts, May 2018**
Majors: Computer Science and Government, *Minor*: Mathematics   **Overall GPA: 3.82/4.00**
Honors: Dean's List: Fall 2014, Spring 2015, Fall 2015   **CS Major GPA: 3.95/4.00**
Relevant Coursework: Robotics, Introduction to Vision and Robotics, Object-Oriented Systems,
Software Design and Modelling, Data Structures and Algorithms, Data Analysis and Visualization,
Parallel and Distributed Processing, Computer Organization, Linear Algebra, Statistics

Programming Experience and Projects

Research

Better Predictors for Issue Lifetime, *Lead Researcher*   **2016**
- I 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
- I co-authored a paper documenting this finding, which is currently under review by the Journal of Systems and Software

Robotics

Multi-floor Wheeled Robot, *Co-Developer*   **2017**
- This wheeled robot is able to access multiple floors of a building by finding an elevator with the help of a person
- The process involves human-robot interaction, face recognition, color following, and line detection to achieve its goal

Line Following Robot, *Co-Developer*   **2016**
- A robot made to accomplish a few tasks involving line following, implemented in Python using a PID controller

Computer Vision/Graphics

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

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

Java Development

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
- Worked on a team of four, focusing on software design principles, using the Visitor pattern and other OO strategies

Easy Calculator, *Sole Developer*   **2015**
- A user-friendly calculator app for Android devices made with modern design in mind

Source code for most projects is available on **GitHub** at: github.com/mjmartin23

Coding Skills

Skilled in:
- Java
- Python
- C/C++
- HTML/CSS

Experience with:
- Git
- Matlab
- UML
- Unix shell

Familiar with:
- Javascript/jQuery
- MySQL
- PHP
- Linux, Windows

Employment

Software Development Engineering Intern, **Amazon**   **May - August 2017**
- Worked with experience engineers developing Amazon's "vision tunnels" image processing algorithm for sorting packages

Undergraduate Researcher, **North Carolina State University**   **May - August 2016**
- Work with Dr. Tim Menzies researching hypotheses from industrial partners

Teaching Assistant, **Colby College Computer Science Department**   **February 2015 - present**
- Assist students with their computer science projects during and outside of class

Activities

Member, Colby Hackers   **2015 - present**
Member, Colby College Class Council   **2015 - present**
Member, Colby College Men's Tennis   **2014 - present**