Christopher Dinh

15713 Cherry Blossom Lane,
North Potomac, Maryland 20878-4903
Phone: (240)-535-3571 Email: cqdinh153@gmail.com Website: https://cqdinh.github.io/

Education

University of Maryland - Baltimore County — Expected graduation: Spring 2019

Computer Science Major, Mathematics Minor - 4.0 Major GPA, 3.625 Cumulative GPA
Honors: Merit Scholar, Dean's List

Experience

Summer Intern, MantaroBot Corporation — Summers 2014 - 2016

- Implemented WebRTC as part of the Mantarobot Teleme Robot App and the TeleGo Controller using HTML and Javascript for the client and Node.js for the server
- Worked on robotic wall detection using Raspberry Pi and Asus XTION for depth sensing. Analyzed and visualized depth data using Python Numpy and MatPlotLib, and used clustering by variance with least squares line fitting to detect objects. Octave was also used for prototyping the algorithms used
- Tested an automatic docking system using Arduino with IR sensors and transmitters for communication and Python for data aggregation
- Worked on modeling and optimizing the movement of a robot arm using gradient descent techniques to find a path between two points that minimizes the stress on the joints. Python was used for the initial testing, but the final implementation was C#

Projects

Google CodeU — March 2017 - Present

- Designing and building a chat application on a team of 3
- Used Java multithreading to implement update polling
- Participating in regular code reviews with a Google Engineer; learning industry best practices such as trunk-based development
- Attending exclusive Youtube Live Career Series hosted by Google recruiters and engineers covering industry and career preparation topics

Sequence Generator — August 2016 - Present

- Using TensorFlow to implement a LSTM network that learns to mimic a labeled sequence. Code: https://github.com/cqdinh/SequenceGenerator Demo: https://cqdinh.github.io/projects/sequence_generator

Principles of Programming Languages Semester Project — Fall 2016

- Designed and created a website in a team of 4 for students to schedule appointments with advisors using HTML, CSS, Javascript, and PHP.

Technical Skills

Languages:
General Purpose: Python, Java, C++, C, C#, Octave, R, Scheme, x86 Assembly
Web Development: Javascript / Node.js, PHP, HTML / CSS
Database: MySQL

Libraries / Frameworks:
Python: Numpy, Tensorflow, MatPlotLib
Java: Android ADK
C++: Arduino

Relevant Coursework

Spring 2017

Computer Organization & Assembly Language Programming

- Learning about low-level programming and memory management in C and Assembly.

Probability & Statistics for Scientists / Engineers

- Learning about applied statistics and the usage of R for basic statistical analysis.

Fall 2016

Data Structures

- Learned about advanced data structures in C++ with an emphasis on pointer usage.

Principles of Programming Languages

- Learned about the theory behind programming languages as well as getting an introduction into web development. Projects and assignments were done in a variety of programming languages including Scheme, Java, PHP, HTML / CSS, and MySQL.

Spring 2016

Multivariable Calculus

- Learned how to apply calculus to multiple dimensions

Introduction to Differential Equations

- Learned about the basics of solving first and second order differential equations.

Fall 2015

Introduction to Linear Algebra

- Learned the basics of linear algebra including the properties of matricies and vectors, vector spaces and subspaces, basis and dimension, and linear transformations.

Coursera - Machine Learning 2015

- Learned the basics of machine learning techniques including gradient descent, neural networks, and support vector machines. Homeworks involved implementing algorithms in Octave.