DORIAN BLOY

Computer Science / Mathematics Major

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EDUCATION

Computer Science and Mathematics

Virginia Polytechnic Institute and State University

August 2018 – June 2022 Blacksburg, VA

Currently in Senior standing with GPA 3.72.

High School

Thomas Jefferson High School for Science and Technology

August 2014 - July 2018 Arlington, VA

Competitive Magnet High School in Northern Virginia.

COURSEWORK

VT Coursework

- CS 3214: **Computer Systems** - Fall 2020
- MATH 4225: **Elementary Real Analysis** - Fall 2020
- MATH 4124: **Abstract Algebra** - Fall 2020
- CMDA 3654: **Intro Data Analytics & Visualization** - Fall 2020

- CS 3114: **Datastructures and Algorithms** - Spring 2020
- MATH 3124: **Modern Algebra** - Spring 2020
- MATH 3144: **Linear Algebra I** - Spring 2020
- MATH 3224: **Advanced Calculus** - Spring 2020
- CS 2505/2506: **Intro to Computer Organization** - Fall 2019 / Spring 2020
- MATH 3214: **Calculus of Several Variables** - Fall 2019
- MATH 3034: **Intro to Proofs** - Fall 2019
- MATH 2214: **Intro to Differential Equations** - Fall 2019
- MATH 2114: **Linear Algebra** - Spring 2019
- STAT 4705: **Probability & Statistics for Engrs.** - Spring 2019
- MATH 2204: **Multivariable Calculus** - Fall 2018
- CS 2114: **Software Design and Data Structures** - Fall 2018

TJHSST Coursework

- AP Computer Science, AP Physics C - Mechanics and Electricity & Magnetism, AP Calculus BC, Multivariable Calculus, Linear Algebra, Artificial Intelligence, Computer Vision, Quantum Mechanics

CERTIFICATIONS

edX MicroMasters in Data Science through UCSanDiego
https://credentials.edx.org/credentials/9aa03597bb6644d890bc4c3efdea9dcd/

VOLUNTEER WORK

Reboot For Youth (September 2016 - June 2018)

- My goal was to help the organization accept donated laptops, to fix any issues they may have, and to redistribute them to students (mostly children) who could not otherwise afford a working laptop. The donated laptops were often old so we would install and configure a lightweight Linux distribution before sending them out.

RESEARCH WORK

Monte-Carlo Game Bot (December 2018 - ongoing)

- Designed a bot to play any fixed turn-order game with any number of players (though I have only implemented Meta-Tic-Tac-Toe)
- Implements the Monte-Carlo tree search algorithm to search for optimal moves
- Can be given variable amount of time to choose next move, thereby making it more or less difficult to beat.

Augmented Reality Cube (January 2018 - September 2018)

- Individual learning project in augmented reality
- Augmented video of a chessboard on a table with a cube centered on the board

n-Prisoners Dilemma using Genetic Algorithms (September 2017 - June 2018)

- Individual research project focused on analyzing the prisoners dilemma with more than two prisoners.
- Designed my own genetic algorithm model to evolve prisoners.
- Worked under Dr. Shane Torbert in the Senior Research Lab at TJHSST.