

Geoffrey Witherington-Perkins

Computer Science & Engineering
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EDUCATION

MICHIGAN STATE UNIVERSITY
B.S. Candidate, Computer Science, Honors College Member
GPA: 3.37

EAST LANSING, MI
August 2016 - May 2020

TECHNICAL PROJECTS

Job Application Tracker
Independently learned Ruby on Rails to develop a web app to help keep track of job applications, their statuses, coding challenge deadlines, and other information.

Ardiuno
Independently researched documentation on Arduinos, power supplies, and LED strips to build a programmable LED strip.

Space Invaders
Worked in groups to make Space Invaders using git and OOP in C++. Organized sprints, standup meetings, and assigned tasks to complete every week using Trello.

Animation Platform
Worked in groups to make a movie-making platform using CRC cards, UML diagrams, and OOP. Users could create actors and automatically animate their locations.

Website
Independently developed and used skills in HTML, CSS, and Bootstrap to build a website to display my experience & qualifications digitally.

TECHNICAL SKILLS

Langugages
Proficient: Python, C++
Comfortable: SQL

Web Development
Comfortable: HTML/CSS, Bootstrap
Limited Experience: Django, Ruby on Rails

EXPERIENCE

MSU CAPSTONE PROJECT - TEAM PROOFPOINT
Predictive Engine for Long-Term Malware Detonation
Working in a team of five on an automated system for running malware samples in long-term sandboxes
Implementing malware categorization using Cuckoo, Yara, and Suricata to save time and resources by only running unique samples
Creating scripts and custom Cuckoo modules for automating the long-term analysis process

EAST LANSING, MI
Jan 2020 - May 2020

ALGORITHMS AND DATA STRUCTURES
Undergraduate Learning Assistant
Created a project and test cases that requires students to implement a new data structure and/or algorithm
Taught and explained difficult concepts to students in helproom each week and via an online forum
Graded students and gave feedback on code quality and time efficiency requirements

EAST LANSING, MI
Sep 2019 - Dec 2019

INTRO TO COMPUTER SCIENCE
Undergraduate Learning Assistant
Taught a section of 20 students every week in Python in the Introduction to Computer Science class
Prepared lecture materials for a short lecture before leading the students through a weekly laboratory exercise
Held help-room hours for students each week, during which I answered questions on the weeks material, exercises, and projects
Created worksheets for students to gain a better understanding of the materials for each week

EAST LANSING, MI
Sep 2018 - Aug 2019

MSU BEACON CENTER FOR THE STUDY OF EVOLUTION IN ACTION
Research Assistant
Worked on AvidaEd, an education tool to teach how evolution and natural selection work
Wrote unit tests in Python to test new features and prevent regression when new features are added
Searched for bugs in the AvidaEd program and reported them to the team supervisor

EAST LANSING, MI
August 2017 - August 2018

MSU NATIONAL SUPERCONDUCTING LABORATORY (NSCL)
Research Assistant
Developed a program in Python that parsed large data files of nuclear decay rates to identify and extract relevant data
Used statistical formulas to average error bounds, calculate standard deviations, etc.
Learned about nuclear decay rates and additional skills for programming in python to write programs with necessary calculations

EAST LANSING, MI
August 2016 - May 2017

ACTIVITIES / HONORS

Deans Honors List, College of Engineering
DEFCON 26 Hacking Convention Attendee
Michigan State University Triangle Fraternity Historian
Michigan State University Honors Program
Michigan State University Distinguished Freshman Scholarship

Fall 2018
August 2018
August 2018 - May 2019
Fall 2016 - Present
Fall 2016 - Present