Ryan McCormick

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EDUCATION

***Binghamton University**, State University of New York, Watson School of Engineering* **Expected: May 2019**
Bachelor of Science in Computer Science, Bachelor of Arts in Mathematics GPA: **3.93**/4.00

SKILLS

Languages: Python, C++, Bash, MATLAB, C, Java, LaTeX, HTML/CSS
Software/OS: Git, Make, Anaconda, GDB, HPC; Vim, Atom, Visual Studio; Arch Linux, Ubuntu, Debian, CentOS

PROFESSIONAL EXPERIENCE

***Software Engineering Intern**, Air Force Research Lab - Sensors Directorate* **May '17 - Aug '17**

- Researched representations of Convolutional Neural Networks and a novel concept for layerwise accuracy
- Utilized MATLAB and Python to obtain graphical and statistical models of trained networks
- Executed mass numbers of jobs on AFRL High Performance Computing (HPC) clusters with bash scripts

PUBLICATIONS

Automatic Sign Language Recognition **Jan '16 - Jan '17**

- Wrote a conference paper on tracking and classifying hands in 3D space with the Leap Motion Controller
- Outperformed state of the art accuracy on a given dataset by 18.5% with our features in C++
- **Published a 4-page research paper at IEEE International Conference on Image Processing 2017**

PROJECT EXPERIENCE

Pokéfetch **Apr '17 - Present**

- Scrapes pokémon wiki for useful information on any valid pokémon input with Python and BeautifulSoup
- Outputs relevant information and sprite in "Neofetch"-fashion with various options to Unix command-line

Dijkstra's Map **May '17**

- Implemented Dijkstra's shortest path algorithm in C++ for a map of cities organized in a grid-like fashion
- Reads input file describing the map and can find the best route from any city to any other in the map

TwitterStocks **Mar '17**

- Created script that scrapes Twitter for keywords to company using Python-Twitter API
- Tallys positive/negative results to predict if inputted stock will trend upward or downward on next day

CryptoCipher **Mar '17**

- Developed program that takes plaintext/encrypted message and encrypts/decrypts it using Python and PyEnchant
- Restricted to "Caesar ciphers" but can decode without key through brute-force spell-checking approach

Where's Waldo 3D **Nov '16**

- Worked in a team of 3 to create a Microsoft HoloLens app in 24 hours at HackAE
- Learned and implemented Unity to create a Where's Waldo hide-and-seek game in Augmented Reality

LEADERSHIP EXPERIENCE

***HackBU, Organizer**, Binghamton University* **Apr '17 - Present**

- Work with diverse team to generate ideas for weekly computer science workshops
- Organize hackathons and secure funding from sponsors

***ACM Student Chapter, Member**, Binghamton University* **Jan '16 - Present**

- Attend weekly meetings on solutions to HackerRank challenges
- Placed 3rd in February 2017 programming competition out of 25 contestants

***Graphics and Image Computing Lab, Research Assistant**, Binghamton University* **Jan '17 - May '17**

- Assisted with facial recognition algorithms and correcting point detection errors

***Guest Speaker**, Binghamton High School* **Apr '17**

- Demonstrated introductory concepts to local HS students through Pygame and HTML with GitHub Pages

***Physics Teaching Assistant**, Binghamton University* **Aug '16 - Jan '17**

- Taught and conducted experiments to relate topics to real world applications with quizzes for additional practice