# SOPHIE SMITH

#### **EDUCATION**

#### BS in Computer Science, May 2021

Carnegie Mellon University, Pittsburgh, PA Concentration in Computer Systems GPA: 3.43/4.00

#### High School Diploma, June 2017

Saratoga Springs High School, Saratoga Springs, NY

# RELEVANT COURSEWORK

Parallel Computer Architecture and Programming\* (15–418)
Software Foundations of Security and Privacy\* (15–316)
Introduction to Computer Security\* (15–330)
Computer Systems (15–213)
Functional Programming (15–150)
Imperative Programming (15–122)
Theoretical Computer Science (15–251)
Parallel and Sequential Data Structures
and Algorithms (15–210)
Computer Vision (16–385)
Introduction to Machine Learning (10–315)

## **SKILLS**

Languages: (Proficient) C, SML, Python (Familiar) C#, Java, R, MATLAB

Tools and Frameworks: LaTeX, Git, Vim

# **PROJECTS**

#### **Dynamic Memory Allocator, July 2018**

- Implemented a dynamic memory allocation system with C for a computer systems course at Carnegie Mellon University
- Optimized the data structure used for storage methods to maximize throughput and memory utilization

# Comparison of Social Factors versus per Capita GDP, August 2016 - May 2017

- Used R to perform k-means clustering, partitioning, and exploratory data analysis to analyze the relationship between socioeconomic variables and GDP in 79 countries
- Placed second in the Behavioral Sciences category at the Upstate New York Junior Science and Humanities Symposium (JSHS)
- Competed at the 55th National JSHS in San Diego, CA

sophiesmith.me sophiesm@andrew.cmu.edu (518) 477-0738

LinkedIn: /smith-sophie GitHub: /sophie-smith

#### **EXPERIENCE**

#### Explorer Intern at Microsoft, May 2019 - Present

System Center Configuration Manager Engineering Team

- Implemented various UI and accessibility improvements for System Center Configuration Management software to aid OS Deployment tasks performed by IT Admin
- Features developed included adding searching and filtering functionality to Task Sequence Editor

#### Teaching Assistant, January 2019 - Present

Introduction to Computer Systems (15–213/18–213/18–613) Carnegie Mellon University

- Led recitations for graduate and undergraduate students to help teach fundamentals of Computer Systems
- Wrote exam questions for midterm and final exam
- Held office hours to help students on course assignments and conceptual understanding of the material

#### **Undergraduate Research Assistant**

Institute for Software Research, Carnegie Mellon University (May 2018 – June 2019)

- Predicted users likely to propagate fake information across Twitter users using label propagation and graphbased convolutional neural networks
- Improved algorithm by connecting users via mentions, retweets, quotes and replies and by analyzing reachability of websites attached to their posts

CREATE Lab, Carnegie Mellon University (September 2018 - May 2019)

- Transcribe videos from artificial intelligence professionals to create a virtual archive of their opinions on the social ramifications of developments in this field
- Helped create a virtual archive of videos for public distribution

## **ACTIVITIES**

 Women in Computer Science at Carnegie Mellon University (2017-present), Board Member

# **AWARDS**

- Dean's List (Spring 2019), Carnegie Mellon University
- Second Place in Upstate NY Junior Science and Humanities Symposium, Behavioral Science Category (Spring 2017)
- Saratoga Springs Rotary Club Presidential Scholarship award recipient (Spring 2017)

<sup>\*</sup> In progress