# 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

Computer Systems (15-213)

Parallel Computer Architecture and Programming\* (15-418)

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)

Software Foundation of Security and Privacy\* (15–316)

#### SKILLS

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

Tools and Frameworks: LaTeX, Git, Vim

#### **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)

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GitHub: /sophie-smith

## EXPERIENCE

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

### **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 - Present)

- 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

## **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
- 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

<sup>\*</sup> In progress