

# Sarah Lau Hale

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## EDUCATION

### HARVEY MUDD COLLEGE

#### BS IN PHYSICS & COMPUTERS

May 2018 | Claremont, CA

High Distinction

Departmental Honors

## SKILLS

Machine Learning • Deep Learning  
Research • Software Development

### Programming Languages:

C++ • Rust • Python • Keras

Bash/shell • Java • Scala

MATLAB • Mathematica

JavaScript • HTML • CSS

## LINKS

LinkedIn:// [slhale](#)

Github:// [slhale](#)

## COURSEWORK

Artificial Intelligence

Machine Learning

Neural Networks

Computer Systems

Data Structures and Program

Development

Computational Methods in Physics

Fourier Series and Boundary Value

Problems

## AWARDS

2018 - National Science Foundation

GRFP Honorable Mention

2017 - Summer Undergraduate

Research Fellow

2014 - National Merit Scholarship

2014 - Andria Erzberger Physics

Scholarship

## EXPERIENCE

### ETSY | MACHINE LEARNING ENGINEER

July 2019 – Current | Brooklyn, NY

Working in the **Advanced Machine Learning Systems** group within the Data Science team on projects improving Etsy search and recommendations.

### GOOGLE | SOFTWARE ENGINEER INTERN

May 2018 – Aug 2018 | Mountain View, CA

Worked on the **Dynamic Search Ads' Quality** team to improve the precision and recall of the query/advertisement matching model.

### GOOGLE | ENGINEERING PRACTICUM INTERN

May 2016 – Aug 2016 | New York, NY

Facilitated addition of new sources of data to local search on **Google Maps** by creating an internal pipeline written in C++ to transform open government data for use in Maps.

### NASA | SOFTWARE ENGINEER INTERN

Jun 2015 – Aug 2015 | Mountain View, CA

Developed for **Open MCT**, a web-based data visualizer intended for mission control usage.

## RESEARCH

### COLUMBIA UNIVERSITY | DEAN'S FELLOW

Aug 2018 - May 2019 | New York, NY

Worked on applying deep learning to measuring cosmological parameters in simulated weak lensing maps.

### LIGO | UNDERGRADUATE RESEARCH FELLOW

Jun 2017 – May 2018 | Caltech & Harvey Mudd College

Personally developed a deep learning gravitational wave classifier prototype which can distinguish simulated gravitational waves from transient noise with >99% accuracy.

### SOUTH POLE TELESCOPE | UNDERGRADUATE RESEARCHER

Sep 2016 – May 2017 | Harvey Mudd College

Analyzed calibration data from the South Pole Telescope to ensure the telescope was sensitive enough to study the cosmic microwave background radiation.

### KAPAO | UNDERGRADUATE RESEARCHER

Sep 2015 – May 2017 | Pomona College

Developed software for the Pomona Adaptive Optics team to analyze telemetry data and choose observation targets.

## LEADERSHIP

### PRISM | MENTOR

Aug 2017 – May 2018 | Harvey Mudd College

Lead a small group of first-year Harvey Mudd students in bonding activities and events to acclimate them to the LGBTQA+ community at Mudd.

### PRISM | TREASURER

Aug 2017 – May 2018 | Harvey Mudd College

Handled budget of over \$3,000 and attended weekly administrative and event planning meetings, as well as the events planned at those meetings.

### EAST DORM | TREASURER

Jan 2016 – May 2018 | Harvey Mudd College

Handled budget of over \$4,000 and gave presentations at dorm meetings.