

Shiye (Sally) Cao

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EDUCATION

Johns Hopkins University Whiting School of Engineering

Baltimore, MD

August 2018 – Present

♦ **Double major in Computer Science & Applied Math**

♦ Cumulative GPA: 3.33/4.0, Fall 2019 Dean's List

♦ Relevant Coursework:

Computer Vision, Machine Learning, Deep Learning, Intro to Data Science, Causal Inference

Deep Learning for Medical Image Analysis, Introduction to Human Language Technology

Calculus III, Linear Algebra, Probability, Statistics, Data Structures, Intermediate (C and C++)

The Madeira School, McLean, VA

September 2014 – June 2018

♦ Cumulative GPA: 96.2/100, National AP Scholar

TECHNICAL & RESEARCH EXPERIENCES

Machine Learning Course Assistant, JHU

August 2020-December 2020

ProjectX, JHU

September 2020-November 2020

3-month long team machine learning research competition hosted by University of Toronto. Applied modern NLP techniques to learn a mapping between bacteriophages and their bacterial hosts using genomic data. Mentored by Swaroop Vedula.

Summer Research Intern, Suchi Saria Lab, JHU

May 2020-August 2020

Applied Machine Learning and Causal Inference techniques onto Electronic Health Record data.

Worked to identify shifts in patient demographics and hospital policies over time. Worked to develop modeling method that is robust over these shifts and changes, specifically for predicting sepsis.

Research, JHU Malone Center for Engineering in Healthcare

August 2019 – Present

Group research under Dr. Anton Dahbura from Johns Hopkins University. Cleaned and generated analytics for patient demographic and mobility data. Used machine learning and statistical techniques to analyze time-series patient data in hopes to discover trends between the frequency and timing of physical therapy and patient recovery.

DL Intern, Mech-Mind Robotics, Beijing, China

May 2019 – August 2019

Applied Deep Learning to industrial projects in computer vision; Researched generation of realistic synthetic data, generalizing models, transfer learning, visualization of convolutional networks (filter visualization), and image depth encoding; Awarded Outstanding Intern.

Intern, Illustrate My Design, Alexandria, Virginia

May 2018 – June 2018

Completed Graphic Design projects and rendered 3D objects using Adobe Illustrator and 3Ds-Max;

Compiled company catalog using InDesign; Found scripts for 3Ds-Max to speed rendering process

Research Assistant, Research Mentorship Program, Santa Barbara, CA

June 2016 – August 2016

Analyzed the relationship between online news and movement of stock prices under a UCSB student mentor using R, linear regression, natural language processing (sentiment analysis), and text mining; presented research at formal university symposium and poster session and drafted a technical paper at the end of the program.

SKILLS:

- ◆ Experienced with Python, Java, Git, Linux Commands, PyTorch
- ◆ Familiar with C, C++, R, LaTeX
- ◆ For my past projects please visit my GitHub: <https://github.com/Sally-14>

Hobbies:

- ◆ Fluent in English and Chinese and intermediate level Spanish
- ◆ In my free time, I enjoy cooking, baking, swimming, and karate
- ◆ Participates in the SWE ++ Tutoring program (introduce computer science to Baltimore Greenmount school students with fun and informational weekly Scratch + Python sessions)
- ◆ Peer Academic Advisor in the Hopkins Undergraduate Leaders in Advising Program