

Yiliang Shi
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EDUCATION

Columbia University

New York, NY

Master of Science, Computer Science 3.7 GPA (Presidential Fellowship)

December 2019

University of Utah

Salt Lake City, UT

Honors Bachelor of Science, Computer Science 3.8 GPA (Presidents Fellowship)

May 2018

Bachelor of Science, Finance

Select Courses: Machine Learning, Natural Language Processing, Visualization, Computer Vision, Data Mining, Database Systems, Distributed Systems, Robotics Learning

Skills: Python, Java, C/C++, Tensorflow, Pytorch, HTML/CSS

EXPERIENCE

Graduate Research Assistant

September 2018 – Present

Columbia University, New York, NY Advisor: Eugene Wu and Carl Vondrick

- **What's Missing from Self-Supervised Learning**
Compared difference between supervised and self-supervised computer vision networks by analyzing feature similarity with respect to a visual task bank. Utilized Canonical Correlation and GradCam for qualitative and quantitative analysis.
- **Deep Neural Inspection**
Design and implement a scalable system for statistical analysis of neural networks using Dask. Utilized Tensorflow, Keras and Pytorch, worked with LSTM and CNN networks.

Undergraduate Research Assistant

August 2017 – May 2018

University of Utah, Salt Lake City, UT Advisor: Bei Wang Philips

- **Visualization and Analysis of Brain Networks**
Designed an interactive web-based visualization tool that shows filtrations of the network based on user input and the corresponding persistent homology. Conducted survey of current brain network visualization techniques.

Software Development Intern

May 2017 – August 2017

MasterControl, Murray, UT

- Developed document management system in Java, HTML CSS and Javascript as member of agile team.
- Brief experience with automated QA using Selenium
- Brief experience with Java Hibernate framework and Angular.js Javascript framework

Teaching Assistant

August 2016 – December 2016

University of Utah, Salt Lake City, UT

- Assisted with grading and teaching for CS3100 - Models of Computations and CS4150 – Algorithms

Undergraduate Research Scholar (REU)

June 2016 – August 2016

New Mexico State University, Las Cruces, NM Advisor: Mai Zheng

- **Command-Level Study of Linux Kernel Bugs**
Examined how Linux kernel bugs impact commands sent at the device-interface level as part of an investigation into systems bugs.

PUBLICATION

Chen, Yiru, **Yiliang Shi**, Boyuan Chen, Thibault Sellam, Carl Vondrick and Eugene B Wu. "Deep Neural Inspection Using DeepBase." (SysML), 2018

Simeng Wang, Jinrui Cao, Danny V. Murillo, **Yiliang Shi**, and Mai Zheng. "Emulating Realistic Flash Device Errors with High Fidelity." (NAS), 2016

Yiliang Shi, Danny V. Murillo, Simeng Wang, Jinrui Cao, and Mai Zheng. "A Command-Level Study of Linux Kernel Bugs". (ICNC'17 REUNS), 2017