William Cao

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Education

2018–2021 B.S. Computer Science, Math, University of Maryland, College Park.

Relevant Coursework: Real Analysis, Object Oriented Programming, Multivariate Calculus,

Differential Equations, Linear Algebra, Introduction to cybersecurity and UNIX

Computer skills

OS Unix Linux Windows Languages Java Matlab Python Bash

JavaScript Css PHP C Pearl SQL

HTML,

Technologies Tensorflow AWS NumPy Pandas CUDA OpenCV

Awards

2018 Banneker Key Scholar.

2018 Funniest Hack- PennApps.

2017 Siemens Semifinalist.

2013-2018 American Invitational Mathematics Exam Qualifer-196.5 Index.

Work

Dec 2018- Deep Learning Intern, MITRE, McLean, VA.

Jan 2019 Worked on Generative Adversarial Networks to create large original image data from a small amount of ground-truth data.

Used Amazon Web Services, Tensor Flow, and Python with command line to build the models.

Created an object detector for airplanes.

Explored using SSIM to evaluate Generative Adversarial data diversity

Jun Research Intern, NIH, Bethesda, MD.

2016-Aug Worked with Myosin 19 and linked it to mitochondrial fission. Used image J and explored

2016 data that indicated overlapping interaction between actin and myosin.

Jun Intern, ERT, Laurel, MD.

2015-July Worked on and helped design Website Development with HTML CSS and javascript.

2015

Personal Projects

2017 **Neural Network project**.

Conducted original research using machine learning in Matlab to identify a model cancer cell, Dictyostelium, based on cell movement. Results were better than a pathologist looking at a single cell slide.

Publications

2019 Exploring Dow index Variance Using Data Mining. accepted in MLDM