Shehtab Zaman

36-08 29th Street, Apartment 4H, Astoria, New York, 11106

917-651-3696 | szaman5@binghamton.edu | szaman19.github.io | szaman19 | shehtabzaman

Education

Binghamton University, State University of New York   *Binghamton, New York*

WATSON SCHOOL OF ENGINEERING AND APPLIED SCIENCE   *Expected December 2020*
- Master of Science in Computer Science
- Relevant Coursework: Advanced Object Oriented Programming, Algorithms, Computer Architecture

HARPUR COLLEGE OF ARTS AND SCIENCE   *January 2019*
- Bachelor of Science in Mathematical Physics
- Deans List: Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017, Spring 2018,Fall 2018

WATSON SCHOOL OF ENGINEERING AND APPLIED SCIENCE
- Minor of Science in Computer Science
- Deans List: Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019

CGPA:3.9/4.0

Technical Skills

Programming Languages   C++, Java, JS, Python, PHP, SQL, Mathematica
Proficient   Windows, Linux, MacOS, Microsoft Office Suite, MySQL, MongoDB, TensorFlow, LaTeX, Angular

Professional Experience

Binghamton University   *Binghamton, New York*

CS DEPARTMENT - AUTOMATA THEORY TEACHING ASSISTANT   *January 2019 - Present*
- Prepared materials for and lectured during weekly 1.5 hour discussion class on models of computation
- Held weekly sessions with students in small groups to assist them with learning objectives, assignments and presentations
- Responsible for grading bi-weekly problem set and presentations for more than 30 students

Information Technology Services - Binghamton University   *Binghamton, New York*

EXPANSION OF COMPUTING INFRASTRUCTURE RESEARCH ASSISTANT   *May 2019 - August 2019*
- Documented cluster usage workflows for research faculty to fully utilize the 166 node high performance cluster
- Implemented and documented containerization technology on the cluster to allow for greater usability of the computational resources
- Explored the usability and implementation of a science gateway built on top of the high performance cluster using Apache Airvata and Open OnDemand

Binghamton University   *Binghamton, New York*

CS DEPARTMENT - UNDERGRADUATE RESEARCH ASSISTANT   *December 2017 - 2018*
- Applied machine learning algorithms such as Deep Neural Nets, SVMs and Random Forest for run time prediction of scientific calculation workloads
- Created first principles model of detecting Chlorophyll concentration in lake water using smart-phone camera

Project Experience

x86 Branch Prediction Simulator   *Binghamton, New York*

DEVELOPER AND DESIGNER   *May 2018*
- Built a program to to predict jump instructions from traces using C++ and OpenMP
- Implemented a Machine Learning-based Branch Predictor to achieve >99% prediction accuracy
- Parallelized code to run multiple branch prediction simulations to achieve an order of magnitude speedup

Honors & Awards

Robert J Penfield Award   *Binghamton, New York*

UNDERGRADUATE AWARD FOR JUNIOR PHYSICS STUDENT   *April, 2018*
- Awarded due to outstanding academic promise in physics

Hack Cooper Finalist and Best Video Hack Winner   *New York, New York*

IMMERSE   *October 2016*
- Engineered with a team of 3 a touch-free gesture controlled media player that feature an infrared sensor
- Collaborated with members to use JavaScript, Electron, VideoJS,and Bootstrap to develop the media player

Publications

Real-Space Visualization of Quantum Phase Transition by Network Topology

PHYSICAL REVIEW E VOL. 100 ISSUE 1   *11 July 2019*