Zhen ZHANG

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EDUCATION

Brown University Providence, RI, USA Ph.D. in Applied Mathematics; CGPA: 4.00/4.00 Sep 2018 - now

City University of Hong Kong

Major in Computing Mathematics; CGPA: 4.11/4.30, Major GPA: 4.20/4.30; Minor in Computing

Hong Kong Sep 2014 - Jun 2018

University of Toronto (Exchange)

Exchange Student; GPA: 4.00/4.00

Toronto, Canada Jan 2017 - Apr 2017

SCHOLARSHIPS AND AWARDS

- HKSAR Government Scholarship
- Joseph Lau Student Exchange Awards
- HKSAR Government Scholarship Fund Reaching Out Award
- Dean's List (Every Semester)

Research Experience for Undergraduates (REU)

Summer Research in UTK/ORNL

Knoxville, TN, USA

Supervisor: Dr. Kwai Wong, Dr. Cheng Liu

May 2016 - Aug 2016

- Received training on high performance computing(HPC) in Oak Ridge National Laboratory
- Project: Implemented a GIS algorithm named dasymetric mapping and proposed a parallel version of the algorithm. The new method effectively improved running efficiency.

Other Research Experiences

Supervisor: Dr. Jun Fan

Solving PDE in Mathematical Biology

CityU, Hong Kong

Sep 2016 - Dec 2016

- Research assistant in Dr. Fan's research group
- o Project: Implemented finite difference method to solve a stochastic, nonlinear diffusion equation modeling factors that influence the lateral organization of the plasma membrane. Studied how different parameters could lead to different scenarios.

Asymptotic Analysis of ODEs

CityU, Hong Kong

Supervisor: Prof. Roderick Wong, Dr. Xiang-Sheng Wang

Jun 2017 - Aug 2017

- o Summer assistant in Liu Bie Ju Centre for Mathematical Sciences
- o Project: Systematically studied asymptotic analysis and Painleve Equations under Dr. Wang's guidance. Gave series solution to a group of ODEs, and tried to give a closed form solution based on well-known special functions. Reviewed Prof. Wong's work on second order linear difference equations.

Learning with Structured Deep Neural Networks Supervisor: Prof. Ding-Xuan Zhou, Dr. Xiaosheng Zhuang

CityU, Hong Kong

Jun 2017 - Now

- Final year project in the math department
- o Project: Study theoretical aspect of Deep Neural Network. Run numerical simulations on image classification problems to verify and support Prof. Zhou's work.

Extracurricular Activity

Position: Membership Secretary of Bass

CityU Choir Committee

o Organized annual performance and conducted regular training of bass section.

Peer-Assisted Learning Scheme using Supplemental Instruction CityU, Hong Kong Position: PALSI Leader Sep 2016 - Dec 2017

o Gave freshmen tutorials on Calculus and organized discussion groups.

CityU Student Mentoring Program

Position: Student Mentor

CityU, Hong Kong Sep 2017 - Now

CityU, Hong Kong

Sep 2015 - May 2016

• Organize orientation and give new students help in academics.

PROGRAMMING SKILLS

 \bullet Java, C/C++, SQL, MATLAB, Python, SAS, Linux Command, LaTeX