Xinran Yu

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Education

University of Illinois at Urbana-Champaign, Illinois

2017-present

Ph.D. in Mathematics

MS in Mathematics, May 2019

University of Liverpool, Liverpool, United Kingdom

2015 - 2017

BSc in Mathematics (with Honors), June 2017

Thesis: Analytic Continuation and Riemann Surfaces. Supervisor: Dr. Jon Woolf.

Xi'an Jiaotong-Liverpool University, Suzhou, China

2013 - 2015

BSc in Applied Mathematics, June 2017

Teaching & Mentoring

Teaching Assistant, University of Illinois at Urbana-Champaign

2019-Present

- · Tutored undergraduate level Differential Equation course.
- · Graded and provided feedback for proof-based courses at advanced undergraduate level.

Graduate Team Leader at Illinois Geometry Lab, University of Illinois at Urbana-Champaign

Fall 2019

Faculty mentor: Katelyn Leisman.

Project: Simulating Multi-Soliton Solutions to NLS and KdV and Studying Interactions

- · Our team focused on the nonlinear Schrödinger equation (NLS) with nonzero boundary condition (NZBC) and studied the exact solution of a one-soliton solutions. We compared the solution of those with ZBC ones, and used Python to generate figures and animations for the solution.
- Held weekly discussions with student and supervised on presentations, poster and final report.
- Provided Python and LATEX support to student participants.

Honors & Awards

Wills Prize in Mathematics, University of Liverpool

July 2017

Special honor in the examination for the degree of bachelor of science with honors.

IMA Prize, University of Liverpool

July 2017

Outstanding performance in the final year, offered by the Institute of Mathematics and its Applications

University Academic Achievement Award, Xi'an Jiaotong-Liverpool University

2014 - 2015

Top 10% of the program.

Skills

Python & R

- · Attended PI4 Bootcamp and did a project regarding goodreads book analysis.
- · Simulated solutions of a Nonlinear Shrödinger Equation and generated graphics for the solutions.

Languages English(Fluent), Japanese and German (intermediate)

Services & Enrichment

PI4 Computational Bootcamp, University of Illinois at Urbana Champaign

June 2020

Foucsed on Python and R for data science applications and did a project regarding goodreads book analysis.

Staff-Student Liaison Committee Member, University of Liverpool

2016 - 2017

Worked as a course representative. Offered student perspective on the Mathematics department and contributed to improvements of the department.

Summer Social Practice Project, Xi'an Jiaotong-Liverpool University Studied the urbanization process of Inner Mongolia.

 $Summer\ 2014$

Assistant at Physical Education Center, Xi'an Jiaotong-Liverpool University

2014 – 2015