

# YUGUANG (ROGER) BAI

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## EXPERIENCE

### Course Instructor

#### University of Toronto

📅 Jan. 2020 – Ongoing

📍 Toronto, ON

- Taught hundreds of students in various disciplines topics in mathematics, particularly those in linear algebra
- Was one of the first instructors to teach and be in charge of a course during the COVID-19 pandemic, laying the foundation and provided advice for future courses
- Achieved an overall 4.4/5 course evaluation from students

### Teacher's Assistant

#### University of Toronto

📅 Sept. 2015 – Dec. 2019

📍 Toronto, ON

- Worked with and helped a variety of students in areas such as calculus, linear algebra, and MATLAB programming
- Debugged several students' code and helped them understand their own code

## EDUCATION

### Ph.D. in Mathematics

#### University of Toronto

📅 Expected Summer 2021

📍 Toronto, ON

Thesis title: Cluster Algebra Structure for Mirković-Vilonen Cycles and Polytopes

### Palette x Fields Accelerated Cybersecurity Training Program

#### Fields Institute

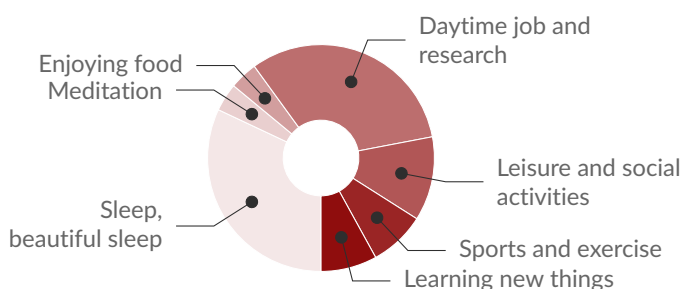
📅 Nov. 2020 - Jan. 2021

📍 Toronto, ON

Learned a variety of topics such as

- Risk Management
- Cryptography
- Network Architecture

## A DAY OF MY LIFE



## LANGUAGES

### Python



### MATLAB



## PACKAGES

Tensorflow

Keras

Pandas

## PRESENTATIONS

### The Geometric Satake Isomorphism

#### University of Toronto

📅 December 2019

### Cluster Algebras and MV Cycles/Polytopes

#### Loyola University Chicago

📅 November 2019

### Derived Categories and its Applications to Sheaves

#### University of Toronto

📅 October 2018

### Algebraic K-Theory of Group Scheme Actions

#### University of Toronto

📅 March 2018

## AWARDS

- Mathematics Graduate Program Award 2019
- Blyth Fellowship 2018
- Malcolm Slingsby Robertson Fellowship 2018
- University of Toronto Fellowship 2015 - 2020
- NSERC Undergraduate Research Award 2014, 2015

## SPECIFIC INTERESTS

Badminton

Mystery novels

Cybersecurity

Machine Learning

Reinforcement Learning