# JIE NIU

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## 🎓 EDUCATION

### Queen's University at Kingston
2017 – 2022

*Bachelor of Computing (Hon.)* specialize in Computer Science and Mathematics

## 🏛 ACADEMIA EXPERIENCE

### Adjunct Instructor
Jan. 2023 – Apr. 2023

St. Lawrence College, Kingston, ON

COMP 53 – Intermediate Database

- Taught beginning to intermediate SQL concepts for database design and querying;
- Facilitated class discussions in-person and via online hybrid;
- Introduced students to advanced database topics.

### Research Assistant
Jan. 2022 – Present

Smith School of Business, Queen's University

Delivered technical components to support research projects.

*Past and Current Projects*:

- Data Mining on Bloomberg Terminal combined with financial databases (WRDS). Wrote automated scripts to extract current corporate credit ratings and update in database.
  - Tools used: R, PostgreSQL, GitHub CI/CD Actions
  - Supervisor: *Prof.* Evan Jo

- Research data processing on retirement, longevity, and annuity pricing. Virtual file system implementation for database file storage.
  - Tools used: R, PostgreSQL, Linux HPC
  - Supervisor: *Prof.* Evan Jo

- Web scraping for financial data from Yahoo Finance. Built time series data and conducted sentiment analysis on user conversations.
  - Tools used: Python, R, Docker
  - Supervisor: *Prof.* Jingyu Zhang

### Teaching Assistant
Jan. 2022 – Present

Smith School of Business, Queen's University

- COMM 420 (Financial Technology and Innovation, Winter 2022)
  Graded assignments; facilitated R programming workshops for quantitative trading.
  Supervisor: *Prof.* Evan Jo

- COMM 161 (Intro. to Mathematical Analysis, Fall 2022)
  Head TA - supervised grading, organized weekly tutorials, maintained student records.
  Supervisor: *Prof.* Matthew Thompson

- MGMT 921 (Capital Markets, Theory and Empirics, Winter 2022 & 2023)
  Conducted workshops and tutorials on R, Python, PostgreSQL, and WRDS.
  Supervisor: *Prof.* Evan Jo

- COMM 493 (Analytics & AI for Business, Winter 2023)
  Graded business case and coding assignments; developed technical documentation for students.
  Supervisor: *Prof.* Shaun Cahill

## 💼 Professional Experience

**Administrative Assistant**                                    Apr. 2021 – Present

Smith School of Business, Queen's University

Supported faculty members, utilized PeopleSoft, managed course websites through D2L, prepared expense claims, organized supplies, and performed other essential tasks as needed.

**Technical Support Representitive**                            Jan. 2021 – Apr. 2021

Kingston Online Services, Kingston, ON

Assisted customers by troubleshooting internet connection and email issues, configured hardware, and responded to calls and support tickets in a help desk.

## 👤 Personal Projects

- LinkedIn data harvesting
- SEC EDGAR archiving and analysis
- Studying for RHCSA linux certification
- Frontend and backend design of a homomorphic encryption algorithm

## ⚙ Skills

- Writing: LaTeX
- Programming Languages: R == SQL > Python == C > Java
- Platform: Mac; Linux; HPC Clusters (*High Performance Computing*)
- Development: Containers (Docker, Podman, Singularity), Web Development (Django, Flask, R Shiny)

## ♡ Honors and Awards

Queen's University Excellence Scholarship                       Sep. 2017
Queen's University General Bursary                              Apr. 2020

## ℹ Miscellaneous

- Notable undergraduate courses: *Logic for Computer Science, Calculus III, Graph Theory*
- Languages: English (Professional), Mandarin (Native)
- Citizenship: Chinese