

# Jie Xia

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## EDUCATION

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- University of Waterloo** Waterloo, Ontario  
*Bachelor of Statistics and Computational Mathematics, Computer Science Minor;* Aug 2017 - Aug 2022  
*Courses: Neural Networks, Computational Inference, Statistical Learning, Computational Linear Algebra, Data Visualization, Financial Modeling, Equity Investment*

## SUMMARY OF QUALIFICATION

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- Highly skilled in full stack web development using Typescript, React, MongoDB, and Django from **Foxquilt** and projects.
- Highly Skilled in **Neural Networks** and **Data Analysis** using PyTorch, R, and Matlab.
- Solid Statistic knowledge in areas such as **Markov Chain**, **Data Visualization**, and **Monte Carlo**
- Quick learner in cross-disciplinary challenges like **Financial Modelling** and **Quantum Info Processing**.
- Well trained in computer science skills, including **OOP**, Noise Reduction, and **Computational Mathematics**.
- Skilled in building test automation frameworks from software testing in Blackberry.
- Excellent collaboration and time management skills, with a ever-learning mindset.

## EXPERIENCE

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- Foxquilt Insurance** Toronto, Ontario  
*Full Stack Software Engineer* May 2021 - December 2021
  - **Online Insurance:** Collaborating with group of engineers, delivered online platform that sells business insurance product for insurance companies using typescript, react, and MongoDB. Received outstanding Co-op review.
  - **Installment Payment:** Implemented installment payment option to give customers friendlier access to insurance using Stripe.
  - **Integrated Insurance Product:** Integrated AmTrust's insurance product (Workers' Compensation) into existing platform, abstracted original work flow and modified data structure.
  - **Customer Portal and Admin Portal:** Created Customer Portal for customers to view their policy documents and make small changes; Created Admin Portal for agents to change or cancel policy in customers' behalf.
- Blackberry** Kanata, Ottawa  
*Core OS Software Development Student* May 2020 - Dec 2020
  - **Unit Testing:** Wrote unit test on file system to reach 100 percent of line/branch coverage. Solved LCOV exception where certain lines/branches are impossible to reach.
  - **Network Test Automation:** Developed fixtures and test classes to make virtual machine perform automated network utilities such as firewall and traceroute and test its result using Python, Bash, Scapy, and Whire shark.
- Shanghai Jianping Highschool** Shanghai, China  
*Student Representative for Library* Sep 2016 - July 2017
  - **Survey for Books:** Performed a school-wide survey and provided the library a list of students' wished books in Excel to make best use of the library's funding; Led groups of students, cataloged and shelved > 1500 new books, verified book price and amount for quality control.
  - **Rebirth of Books:** Organized second-handed books exchange events to help students get the books they want with their read or uninterested books.
  - **Onward to Glory:** Organized events including reading **poems**, watching musicals, directed two musicals for school ceremonies.

## PROJECTS

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- **Neural Networks:** Performed Adversarial Attack, Recursive Neural Network, Backward Propagation Through Time, Population Coding using pytorch.
- **Serial Port:** Wrote an API and GUI that controls serial port communication between computer and a printer, controlling files/images to print, ink checking, changes on setting, etc. in C#
- **Mobile App:** Collaborating with university Students, designed an online/mobile app that allows users to design and exchange cards so they can share their moods and thoughts with random people using Django and JavaScript (while taking five courses at the same time).