

# ASIC CHEN

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## EDUCATION

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### University of Toronto

Machine Learning and Computational Healthcare, Supervised by Prof. Rahul Krishnan

*Master of Science: September 2022 - Present*

### University of Toronto

Computer Science Specialist, Statistics Major, Mathematics Minor

*Bachelor of Science: September 2015 - April 2020*

*Cum. GPA: 3.93 out of 4.0*

## EXPERIENCE

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### TD Asset Management

*Portfolio Research and Analytics Team*

June 2020 - April 2022

*Quantitative Analyst*

To create quantitative solutions for fixed income pricing and trading: Build and backtest statistical and machine learning models for risk and alpha estimation - e.g.: projecting yield curves and determining optimal carry metrics - using various python statistical libraries; Maintain and improve a Gurobi mixed-integer programming-based portfolio optimizer; Integrate new data sources; Expose interactive results through web applications in React and Django.

### Royal Bank of Canada (RBC)

*Amplify, Market Risk Team*

May 2019 - August 2019, Toronto, ON

*Developer and Data Scientist Intern*

To improve the responsiveness of the market risk department: Conducted extensive user research on applying data science to market risk; Created patent-pending solution (US Patent Application #20210049699) with machine learning models in TensorFlow for stress testing and D3.js for visualizations; Saved up to 2 months in stress scenario implementation and generated valuable insight. Pitched in front of Group Executive level judges; Among the 3 teams (out of 21) recognized at the Amplify Expo, awarded the Most Disruptive Solution and a 10K cash prize.

### International Business Machines (IBM)

*Db2 Database Performance Analytics Team*

May 2017 - August 2018, Markham, ON

*Developer Intern*

To improve efficiency of existing performance testing infrastructure: Built a cognitive dashboard for various personas using Angular, Go (API), and IBM Db2 (database); Employed statistics and machine learning in Python to better analyze performance regressions and trends; Eliminated false positives by around 11%.

As a Career & Development Lead: Represented IBM at recruitment events; Organized career and technical workshops.

### Zeroth Responders (Start-Up)

*University of Toronto Entrepreneurship Hatchery (Incubator)*

January 2018 - August 2018, Toronto, ON

*Co-founder and Software Developer*

To create a crowd-sourcing solution to decrease response time for medical emergencies: Extended top prize-winning project from UofTHacks 2018 into a cross-platform application on AWS; People's Choice Award at the U of T Entrepreneurship Hatchery's incubator program; Pitched to various stakeholders such as the Toronto Police Service.

### China Financial Futures Exchange (CFFEX)

*Clearing and Settlement Technologies*

May 2016 - August 2016, Shanghai, China

*Developer Intern*

To create next-gen software systems: Researched rules and procedures used by futures exchanges world-wide; Completed requirements analysis; Implemented parts of back-end logic using Oracle PL/SQL and Java.

## AWARDS & INITIATIVES

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### U of T Computer Science Student Union

University of Toronto Chancellor's Scholarships

UofTHacks Hackathon

IBM Center for Advanced Studies Conference (CASCON)

University of Toronto President's Scholar of Excellence

Vice President, 2017 - 2019

2016, 2018

Top Prize, January 2018

Workshop and demo host, 2018

CAD\$13,000 in entrance scholarship, 2015