JI TONG YIN | Curriculum Vitae

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Education

University of British Columbia, Vancouver, BC — Sept 2020 - Present
MSc in Computer Science

University of Toronto, Toronto, ON — Sept 2015 - May 2020
BASc in Engineering Science (Major in Engineering Mathematics, Statistics and Finance)
Cumulative GPA: 3.93/4.00
GRE: Verbal 162 / Quantitative 170 / Essay 5.0

Academic Experience

Teaching Assistant — Sept 2020 - Present
University of British Columbia, Vancouver, BC
- Led tutorials and performed assessment and marking for CPSC304 - Introduction to Relational Databases.

Faculty-Mentored Thesis — May 2019 - May 2020
University of Toronto, Toronto, ON
- Working on an undergraduate research thesis with the guidance of Professor Timothy Chan.
- Proposed Topic: Analyzing Curling Performance Using a Dynamic Programming Approach.

Research Assistant - Dynamic Graphics Project — May 2017 - Aug 2017
University of Toronto, Toronto, ON
- Conducted NSERC-sponsored summer research partially funded by Professor Kyros Kutalakos.
- Project Description: Calculating 3D Object Depth Using Structured Light Imaging.

Research Assistant - Intelligent Sensory Microsystems Laboratory — May 2016 - Aug 2016
University of Toronto, Toronto, ON
- Conducted a summer research project under the supervision of Professor Roman Genov.
- Project Description: Developing a Novel Biomedical Wearable for Performance Analysis through Unsupervised Machine Learning.

Presentations and Posters

Calculating 3D Object Depth Using Structured Light Imaging — Aug 2017
Presentation at Undergraduate Summer Research Conference
University of Toronto, Toronto, ON

DinoRun: A New Approach to Gamifying Fitness for Children May 2016
Poster at University of Toronto Praxis Showcase
University of Toronto, Toronto, ON

Industry Experience

Software Engineering Intern - Shopify (International R&D Team) May 2019 - Aug 2019
Toronto, ON
- Wrote backend code to create modelled data given an ingested input for a major new feature.
- Created an integration pipeline to allow Shopify partners to incorporate their own applications.
- Developed UI widgets to improve merchant experience and collect data on merchant behavior.

Software Engineering Intern - Stanza (Data Team) May 2018 - Apr 2019
San Francisco, CA
- Implemented a backend API platform to centralize ad revenue payments and show revenue statistics.
- Developed automated jobs to query for and display engagement data.
- Created an event collection and transformation pipeline using AWS tools and Airflow.

Student and Volunteer Organizations

Mentor, NSight Mentorship Program Sept 2016 - Present
- Mentored first-year students to help them with the transition to university.

Freelance Tutor Sept 2017 - Present
- Tutored first-year students for an introductory undergraduate computer science course.

Member, Mechatronics Design Association Sept 2015 - May 2017
- Developed and implemented marketing strategies to attract corporate sponsors.

Awards, Grants, and Scholarships

Awards

MLH Anti-Harassment Hack Award Jan 2017
- Award given to the project that best addresses the problem of student harassment.

HackWithIX, 3rd Place Oct 2016

The Game, 2nd Place ($2000) May 2016
- Semester long competition in which teams engineer a project to benefit the social good.

University of Toronto Dean's List (8 times) Sept 2015 - May 2020
- Attained a 80%+ semester average.

Grants

NSERC Computer Science Undergraduate Student Research Award ($6000) May 2017

- Proposal: Calculating 3D Object Depth Using Structured Light Imaging

Scholarships

The Crocker Foundation Bursary ($2600) Dec 2016

Mario and Dorothy Pesando Scholarship ($2567) Oct 2016

University of Toronto Scholar ($6000) Sept 2015

Skills

Programming

Python (including numpy, matplotlib, scipy) • MATLAB • R • C • C++ (using OpenCV) • HTML/CSS • Javascript (node.js, react) • LaTeX • VBA

Other

Engineering Design • UI Design (Figma) • EMG data collection in humans • Circuits • Statistical Computation Methods

Relevant Coursework

Computer Science

Data Structures and Algorithms • Computer Graphics • Computer Vision • Introduction to Databases • Introduction to Machine Learning • Human-Computer Interaction

Statistics and Applied Math

Probability and Statistics • Vector Calculus • Ordinary Differential Equations • Partial Differential Equations • Waves • Methods of Data Analysis • Real Analysis • Stochastic Processes