

# Vaskar Nath

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## Education

2018 - 2022

TORONTO, ONTARIO

### Honors Bachelor of Science In Computer Science and Mathematics / University of Toronto

- Current Standing GPA: 4.0, Cumulative Average: 92.0%, Deans List
- University of Toronto Scholar Entrance Scholarship – Awarded to top 5% of UofT students upon admission – \$7,500
- Trinity College Kao Family Scholarship – One of 90 scholarships awarded to Trinity students upon admission – \$2,000
- In Course Academic Scholarship for High Academic Achievement in First Year – \$500

2015 - 2018

CALGARY, ALBERTA

### International Baccalaureate Diploma & Alberta HS Diploma / Western Canada High School

- Overall GPA: 4.0, 3-year Cumulative Average: 96.2%, 43/45 IB Diploma (Top 3% Worldwide)
- Honor Society Lifetime Member, 3x Honors with Distinction
- 3x Alexander Rutherford Scholarship - \$2500

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## Work/Experience

MAY 2019 – SEPTEMBER 2019

CALGARY, ALBERTA

### Computational and Statistical Genomics Researcher/ Alberta Health Services

- Alberta Children Hospital Research Award – \$6000
- Modified former statistical and probabilistic models to incorporate various natural phenomena
- Utilized a computing cluster to run analysis and gather results via Python scripts
- Derived and implemented four probabilistic Markov Chain models in Python and C++
- Continued work in analysis of the derived models and derivation of other probabilistic and statistical models

JUNE 2017 – SEPTEMBER 2017

CALGARY, ALBERTA

### Applied Mathematics Researcher/ University of Calgary

- Attempted to solve an individual, currently unsolved, problem with weekly guidance from the leading professor - solved the diagonal and Werner-State cases within the three-month period
- Self-learned advanced linear algebra, calculus, and analysis topics

SEPTEMBER 2016 – AUGUST 2018

CALGARY, ALBERTA

### Tutor & Mentor / Kumon Math and Reading Centre

- Instituted mentoring program between pre-kindergarten and 12<sup>th</sup> grade students, increasing student development and enthusiasm for learning
- Taught skills in math, reading, and writing via individual and group instruction

MAY 2019 – AUGUST 2019

CALGARY, ALBERTA

### Canvasser/ Major Political Party

- Conversed door to door to gather data on political views, while sharing the political policies of the party to answer questions regarding local issues

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## Skills

### Languages and Technologies

- Python, Java, C, C++, Verilog, Git, LaTeX, Command Line, Bash Script, SLURM

### Course Work

- Intro. To Machine Learning, Analysis I & II, Linear Algebra, Computer Hardware, Physics, Data Structures, Theory of Computation, OOP, Programming, Probability and Statistics I & II, Economics, Organic Chemistry

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## Projects

### Android App Using Android Studio (<https://github.com/VaskarNath/first-android-app.git>)

- Developed a large-scale android app with a group of 5, adhering to various object-oriented design and coding principles

### Enhanced Snake Game with Hardware (<https://github.com/VaskarNath/snake-hardware.git>)

- Created 2-player snake with a randomly generated fruit, randomly moving fruit, and keyboard input functionality