# Daniel Fan

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#### **EDUCATION**

## Bachelor of Applied Science (B.A. Sc.), University of Toronto

September 2016 - April 2021

Major in Mechanical Engineering - Mechatronics and Manufacturing (Statistics) Stream

Minor in Engineering Business

Cumulative GPA: 3.79/4.00; Dean's List all semesters

#### **SKILLS & CERTIFICATION**

- Development: Python, MATLAB, Java, VBA, SQL, R
- Software: Microsoft Excel, MiniTab, Solidworks, PSpice, ANSYS
- Certifications: CFA Level I Candidate, Bloomberg Market Concepts Certificate, Certified Solidworks Associate
- Languages: English, French, Mandarin

#### **EMPLOYMENT**

#### **Toronto Transit Commission**

May 2019 - Present

Mechanical Engineering Intern

Toronto, ON

- Led a research project with a federal government organization to install data loggers in the Toronto Rocket trains. These data loggers accurately and reliably monitored the air quality inside the train to an accuracy of 95%.
- Utilized DMAIC and Six Sigma Methodology to implement Excel VBA scripts that generated reports on train wheel wear. The reports were used to determine optimal wheel replacement times, reducing wheel maintenance costs by 20%.
- Consulted with train maintenance employees to identify any process inefficiencies. Spearheaded a train maintenance process improvement project that saves 200 work hours a year.

Clek Inc. June 2018 - Aug. 2018

Product Engineering Intern

Toronto, ON

- Spearheaded prototype building activities for the development of a new infant car seat. Prototyping activities involved the
  machining of new and existing parts. The effective coordination of the project allowed for the timely release of the
  product.
- Solved quality assurance issues at an offsite assembly line to maintain constant daily production output.

#### PROJECTS & EXTRACURRICULARS

#### University of Toronto Engineering Finance Association

Sept. 2019 - Present

• Conducted quantitative analysis (Discounted Cash Flow, Comparable) and qualitative research on the financial statements of various companies to pitch their stocks.

### Portfolio Optimization

Sept. 2019 - Dec. 2019

- Utilized MATLAB to optimize a liability matching portfolio consisting of various financial assets.
- Utilized MATLAB to generate a Markowitz Efficient Frontier of various portfolios using Modern Portfolio Theory.

# Life Cycle Assessment of Chromatic Glass Windows

Jan. 2019 - April 2019

• Led a team of 4 to conduct an economic, social, and environmental analysis on the use of chromatic glass windows compared to tinted glass windows in a hospital setting. The report was successful and received a grade of 92%.

#### Vehicle Speed Sensor

Sept. - Dec. 2018

• Developed and implemented an Arduino speed sensor for use in a chemical powered vehicle as part of the University of Toronto Chemical Vehicles Club. This speed sensor was used to determine instantaneous speed as well as overall distance travelled.