# TRISTAN FORD, P.ENG, PMP

### **Transportation Optimization Specialist**

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in tristan-f-07087813b

Victoria. BO



## **EXPERIENCE**

### **Graduate Research Assistant**

### **University of British Columbia**

- **September 2023 current**
- Vancouver, BC
- Research on computational optimization of transportation networks using machine learning and linear programming
- Algorithm development for continuous and discrete optimization problems including gradient based and decomposition methods
- Leveraging solver software to solve optimization problems in Julia

### Transit Planner

#### **BC Transit**

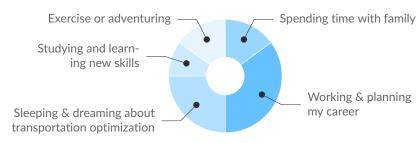
- **August 2021 August 2023**
- Victoria, BC
- Operational optimizations via transit data science in Python
- Machine learning modeling to predict ridership and GHG emissions
- Data management and visualizations utilizing Microsoft Azure and PowerBI

### Signalling & Train Control EIT

### **SNC-Lavalin**

- **May 2018 August 2021**
- Vancouver, BC
- MATLAB modelling for optimization of Light Rail Transit signalling design
- Designed and implemented transportation engineering projects including communication systems and signalling upgrades
- Performed operations and logistics feasibility studies for transportation authorities such as TransLink

# A DAY OF MY LIFE



# **ASSOCIATIONS**

### **Professional Engineer**

**Engineers and Geoscientists British Columbia** 

December 2023 - Ongoing

**Project Management Professional** 

**Project Management Institute** 

December 2020 - Ongoing

### **AWARDS**

John Vardon Memorial Scholarship
Institute of Transportation Engineers

**April** 2024 - April 2025

## MOST PROUD OF

Schedule optimization

to minimize propagated delays in transit networks through mixed integer linear programming

**Data-driven improvements** 

of transit service in the Victoria Regional Transit System including various tools and dashboards to grow ridership despite resource challenge

ML ridership model

developed in under two months to help my company better understand the potential impacts of Covid-19 on transit

# **STRENGTHS**

Public Speaking Machine Learning
Algorithms Project Management
Transportation Leadership

Math & Statistics Git Python R

# **LANGUAGES**

React

English French

Julia



SQL

# **EDUCATION**

BASc in Engineering Physics

**University of British Columbia** 

September 2014 - April 2019

MASc in Operations and Logistics Research / Transportation Engineering

**University of British Columbia** 

September 2023 - Ongoing