

TRISTAN FORD, P.ENG, PMP

Transportation Optimization Specialist

 tristan4d  tristan-f-07087813b  Victoria, BC



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

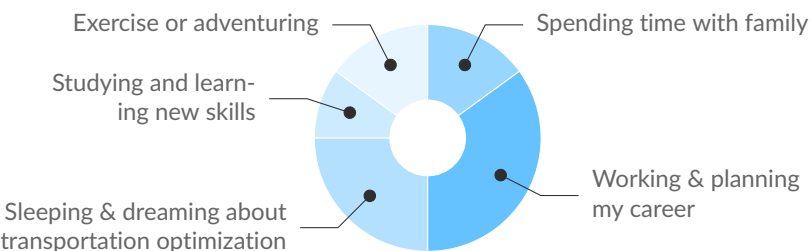
Research Intern

University of Wurzburg

 May 2017 – December 2017  Wurzburg, Bavaria

- Designed and successfully interfaced a custom molecular beam setup for multidimensional spectroscopy experiments
- Aided doctoral students with physical chemistry research with a focus on optical instruments

A DAY OF MY LIFE



ASSOCIATIONS

Professional Engineer

Engineers and Geoscientists British Columbia

 December 2023 – Ongoing

Transportation Team

UBC Smart City

 September 2023 – Ongoing

Project Management Professional

Project Management Institute

 December 2020 – Ongoing

MOST PROUD OF



Data-driven optimization

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



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
Julia React C++ VBA SQL

LANGUAGES

English
French



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