

Mark Edwardson

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EDUCATION

University of Victoria

Bachelor of Engineering (Civil)

Victoria, BC

Sept. 2020 – Aug. 2025 (Expected)

EXPERIENCE

Transportation Engineering Co-op

Urban Systems Ltd.

May 2023 – August 2024

Vancouver, BC

- Acted as CAD designer on several concept and detailed design of active transportation projects using Civil 3D, contributing to corridor design, 2D linework, drawing production, and cost estimates
- Developed technical figures for the "Floating Bus Stop" [Design Guide](#) published by MoTI and Translink. Gained an understanding of accessibility challenges in cycling infrastructure, and available tools and guidance to resolve them
- Developed Python scripts to automate analysis of ICBC crash data based on text descriptions of the crash. Scripts were key to delivering the project within budget
- Summarized public feedback on proposed transportation projects, allowing council and staff to better understand trade-offs and community priorities

Estimating Co-op

PCL Construction Ltd.

Sept. 2022 – Dec. 2022

Calgary, AB

- Led the creation of estimates and tender bid submissions with values of \$600,000 to \$1.2M
- Coordinated with my supervisor, operations team, and sub-contractors to set milestones, resolve issues, and solicit prospective sub-contractors for quotes
- Worked closely with other estimators during closing day to evaluate incoming sub-contractor quotes to ensure PCL's tender submission contained a complete scope while remaining competitive

Transit Planning Co-op

BC Transit

Jan 2022 – Apr 2022

Victoria, BC

- Worked with a team to program a ridership forecasting model in Python that analyzed changes in COVID cases, economic conditions, and service levels during the pandemic to forecast future transit ridership in Victoria
- Used Excel macros to develop tools that analyzed bus route performance and suggested candidates for service investment/reduction.
- Wrote project reports, service change notices, and responses to development referrals

PROJECTS

Victoria Bus Speed Analysis | *GTFS Data, GIS, Python*

Aug 2023 – Present

- Leveraged BC Transit's live GTFS feed to develop a months-long database of bus locations and speeds
- Developed a [website](#) to visualize bus performance over time and by route
- Gained a better understanding of opportunities to improve transit infrastructure in the CRD

Transportation Access Maps | *Google Maps API, Python, Census Data*

Aug 2022 – Aug 2022

- Developed a [website](#) to compare travel times by mode through the CRD and Metro Vancouver
- Gained experience with Google APIs, Python, and data visualization
- Developed a better understanding of spatial inequities in regional transportation systems

MY SKILLS

CAD: Civil 3D, Revit, AutoCAD, Fusion, Vectorworks

Analysis Tools: Python, QGIS, MATLAB, PowerBI, Excel, Github

Data Sources: ICBC crash collision data, Canadian Census, Google Maps API, Strava Metro Data

Other Interests: 3D printing, biking, reading, puzzles