MARK EDWARDSON

1566 Yale St, Victoria, BC | 778-967-5043 | M.EdwardsonX@gmail.com | Portfolio: markedwardson.me

To: Parsons

Re: Summer 2023 Co-op Opportunity

Dear Co-op Recruiter,

I am a third-year civil engineering student at the University of Victoria. I would like to apply for a 4-month co-op position with Parsons in either Victoria, Burnaby, or Calgary to gain experience in transportation engineering. I am particularly interested in wide variety of rapid transit, highway, and tunneling projects that Parsons designs, and I am eager to gain experience in the civil engineering consulting industry.

My first co-op was with BC Transit's planning department. Two projects I worked on were developing tools for service optimization, where I wrote Excel Macro tools to identify investment candidates and pass-up risks of service changes. As well, I was on our transit forecast project team, where I collaborated with other planners and analysts to develop statistical models to forecast transit ridership over a three-year period. In addition, I wrote responses to development referrals, active transportation projects, and Official Community Plans.

I first developed an interest in transportation engineering while taking a Geomatics Engineering Class. For my final project, my team used ArcGIS and various open-source datasets to estimate current bus ridership and evaluate the ridership, traffic impacts, and cost feasibility of Light Rail Transit along different existing bus routes in Victoria and map our recommended route.

I enjoy working in fast-paced environments with tight deadlines that require multi-tasking. As an estimating student with PCL Construction in Calgary, I led the creation of three tender bids for demolition and renovation projects in healthcare and shopping malls. I analyzed project drawings, identified construction scopes, used software to perform quantity take-offs, built estimate books, and evaluated sub-contractor bids on closing day. I also gained experience in deadline management, teamwork, and problem solving.

Finally, a co-op with Parsons would build on my prior experience with a consulting firm working with clients, contractors, and other consultants. I previously worked two summers as a junior technician at Bradley Shuya Architect Inc, a local Victoria architectural firm. This role gave me practical experience with CAD on several large institutional projects, combining engineering and architectural drawings and revisions to produce detailed final as-built documentation for clients. I also helped manage the firm's administration; wrote proposals, progress reports, and deficiency reports; and supported communication with consultants and clients.

Thank you for taking the time to read this letter. I have a keen interest in transportation engineering and Parsons is a leader in this field. If you believe I would be a good fit with Parsons, please contact me by phone (778-967-5043), email (m.edwardsonx@gmail.com), or through the UVic Engineering Co-op Office.

Sincerely,

Mark Edwardson

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EDUCATION

University of Victoria – Victoria, BC [Sept. 2020 – Present]

Bachelor of Engineering
Third Year Student (Term 3A)
GPA: 8.42/9

SKILLS & ABILITIES

Proficient in using Python and GIS Software for Engineering and Planning Applications

At BC Transit, I wrote a ridership forecast model in Python that used multiple linear regressions to model past variation in route- and system-level transit ridership in Victoria and predict future trends in ridership.

Competent at using ArcGIS to analyze and visualize geographic data and make recommendations about land use and site location. As a project for my Geomatics Engineering class, my team used BC Transit's open GIS bus route data in combination with Statistics Canada population data to study the current capacity of Victoria's bus routes and identify route candidates for LRT implementation.

Talented at learning new CAD/BIM software

Took 4 drafting classes in high school, becoming highly proficient in Vectorworks, an architectural BIM drafting program, and competent in Fusion 360, a mechanical/3D printing drafting program. Became a Teacher Assistant for the class to teach my skills to others. Took an Introductory Drafting course to gain experience with AutoCad, Revit, and Civil3D.

Effective Team Member in Deadline-Driven Environments

At PCL, I led the submission of three project estimates, each with deadlines of 2-3 weeks. Coordinated with my supervisor, operations team, and sub-contractors to set milestones, resolve issues, and solicit prospective sub-contractors. Worked closely with other estimators during closing day to evaluate incoming sub-contractor quotes to ensure the tender submission contained a complete scope while remaining competitive. PCL was awarded 3 of the 4 projects I worked on.

Strong Communication Skills and Experience with Word Processing and Spreadsheets

While at BC Transit, I used Excel Macros to build automated tools that assessed bus route performance and suggest candidates for investment or reduction in service.

Currently the president of the UVic Debate Society and compete in university-level debate tournaments. Winning requires quick thinking, strong logic, and an understanding of the issues.

WORK EXPERIENCE

Estimating Student, *PCL Construction Management* (Calgary) [September 2022 – December 2022]

- Led the creation of estimates and tender bid submissions with minimal supervision. Projects had values of $600,000 to $1,200,000 and PCL was awarded three of these projects.
- Performed estimating tasks such as reviewing drawings, performing quantity takeoffs, preparing estimate books, coordinating with trade subcontractors, and participated in bid closings
- Compiling historical unit price data for company dashboards and applying programing skills to automate data collection

Transit Planning Co-op Student, *BC Transit* [January 2022 – April 2022]

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

Junior Technician, *Bradley Shuya Architect Inc.* [June – September 2018; June - September 2019]

- Assisted in drafting architectural drawings for firm clients
- Created promotional material for prospective clients
- Helped manage daily company administration
- Wrote documents such as Request for Qualifications and other reports

Volunteer, *Habitat for Humanity Victoria* [Oct. 2019 – Sept. 2020]

- Volunteered 4 hours a week at Habitat for Humanity Restore, a charity that raises money for affordable housing. My work involved sorting, cleaning, packaging, and pricing incoming goods that are donated to be sold, as well as general retail jobs such as helping customers.

RECENT PROJECTS

- As a project for my Geomatics Engineering class, my team used BC Transit's open GIS bus route data in combination with StatsCan population data to study the current capacity of Victoria's bus routes and identify route candidates for LRT implementation.
- Currently working on a 3D-printed model of the Johnson Street Bridge in Victoria. Project involves analyzing drawings, developing a 3D CAD model, and printing/assembling parts.

AWARDS

- University of Victoria Faculty of Engineering Dean's Entrance Award (2020)
- T.S. Mcpherson Renewable Scholarship Award ($30,000) (2020)
- School District Authority Award for Applied Design (Drafting) Skills (2020)

UNOFFICIAL TRANSCRIPT OF STUDIES AT THE UNIVERSITY OF VICTORIA

FOR Mark Edwardson (V00967010) AS OF 18 Jan 2023

If you require additional information please consult the University of Victoria calendar
by copying and pasting the following link to your browser: http://uvic.ca/calendar/

Course History at the University of Victoria

ACADEMIC RECORD FOR UNDERGRADUATE STUDIES EXCLUDING LAW PROGRAMS

SESSION	COURSE		DESCRIPTION	UNIT VALUE	GRADE		GRADE POINT	AWARDED UNITS	NOTE	COMPARATIVE MEAN	COMPARATIVE SIZE
Course Credit Recognized on Admission											
College Board Canada (AP)											
TOTAL CREDITS RECOGNIZED: 6.00 UNITS											
WINTER 2020-2021											
First Term: Sep - Dec 2020											
ENGINEERING B.ENG.											
(CO-OP ENGINEERING)											
			THIS TERM TOOK PLACE DURING THE COVID-19 PANDEMIC								
	CSC	111	FUNDMNTL PRGRMNG:ENGR APS	1.5	91%	A+	9	1.5		72%	148
	ENGR	110	DESIGN AND COMMUNICATION I	2.5	87%	A	8	2.5		76%	24
	ENGR	130	INTRO TO PROFESSIONAL PRACTICE	0.5	95%	A+	9	0.5		89%	240
	MATH	110	MATRIX ALGEBRA FOR ENGINEERS	1.5	89%	A	8	1.5		71%	147
	PHYS	110	INTRODUCTORY PHYSICS I	1.5	87%	A	8	1.5		67%	434
Second Term: Jan - Apr 2021											
ENGINEERING B.ENG.											
(CO-OP ENGINEERING)											
			THIS TERM TOOK PLACE DURING THE COVID-19 PANDEMIC								
	CHEM	150	ENGINEERING CHEMISTRY	1.5	81%	A-	7	1.5		64%	167
	ENGR	120	DESIGN AND COMMUNICATION II	2.5	91%	A+	9	2.5		89%	29
	ENGR	141	ENGINEERING MECHANICS	1.5	91%	A+	9	1.5		78%	149
	MATH	101	CALCULUS:II	1.5	90%	A+	9	1.5		78%	202
	PHYS	111	INTRODUCTORY PHYSICS II	1.5	87%	A	8	1.5		75%	172
	SESSIONAL GPA = 8.38 (05MAY2021)										
	CREDIT IN 16.0 UNITS										
	IN GOOD ACADEMIC STANDING (05MAY2021)										
SUMMER 2021											
Summer Session: May - Aug 2021											
ENGINEERING B.ENG.											
(CO-OP ENGINEERING)											
			THIS TERM TOOK PLACE DURING THE COVID-19 PANDEMIC								
	MATH	200	CALCULUS III	1.5	94%	A+	9	1.5		85%	87
	SESSIONAL GPA = 9.00 (13AUG2021)										
	CREDIT IN 1.5 UNITS										
	IN GOOD ACADEMIC STANDING (23AUG2021)										

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WINTER 2021-2022											
First Term: Sep - Dec 2021											
ENGINEERING B.ENG.											
CIVIL ENGINEERING											
(CO-OP ENGINEERING)											
	CIVE	200	ENGINEERING DRAWING	1.5	90%	A+	9	1.5		80%	72
	CIVE	299	GEOMATICS ENGINEERING	1.5	89%	A	8	1.5		80%	78
	GEOG	103	INTRO PHYSICAL GEOGRAPHY	1.5	86%	A	8	1.5		77%	185
	MATH	204	CALCULUS IV	1.5	91%	A+	9	1.5		79%	106
	STAT	254	PROB+STATISTICS:ENGINEERS	1.5	100%	A+	9	1.5		85%	129
Second Term: Jan - Apr 2022											
ENGINEERING B.ENG.											
CIVIL ENGINEERING											
(CO-OP ENGINEERING)											
			Work Term: 01JAN2022 - 30APR2022								
			BC TRANSIT VICTORIA, BC CANADA								
	ENGR	001	CO-OP WORK TERM	4.5	COM					N/A	
			SESSIONAL GPA = 8.60 (30JUN2022)								
			CREDIT IN 7.5 UNITS								
			IN GOOD ACADEMIC STANDING (19APR2022)								
SUMMER 2022											
Summer Session: May - Aug 2022											
ENGINEERING B.ENG.											
CIVIL ENGINEERING											
(CO-OP ENGINEERING)											
	CIVE	210	SUSTAINABILITY IN CIVIL ENGR	1.5	95%	A+	9	1.5		75%	70
	CIVE	220	MECHANICS OF SOLIDS I	1.5	94%	A+	9	1.5		76%	71
	CIVE	242	DYNAMICS	1.5	89%	A	8	1.5		78%	68
	CIVE	285	CIVIL ENGINEERING MATERIALS	1.5	88%	A	8	1.5		77%	73
	CIVE	295	BUILDING SCIENCE FUNDAMENTALS	1.5	82%	A-	7	1.5		80%	74
			SESSIONAL GPA = 8.20 (01SEP2022)								
			CREDIT IN 7.5 UNITS								
			IN GOOD ACADEMIC STANDING (01SEP2022)								
CUMULATIVE GPA: 8.42											
WINTER 2022-2023											
First Term: Sep - Dec 2022											
ENGINEERING B.ENG.											
CIVIL ENGINEERING											
(CO-OP ENGINEERING)											
			Work Term: 01SEP2022 - 31DEC2022								
			PCL CONSTRUCTION MANAGEMENT CALGARY, AB CANADA								
	ENGR	002	CO-OP WORK TERM	4.5	CONTINUING						

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Second Term: Jan - Apr 2023										
ENGINEERING B.ENG.										
CIVIL ENGINEERING										
(CO-OP ENGINEERING)										
	CIVE	310	INTRO TO ENVIRONMENTAL ENGR	1.5	CONTINUING					
	CIVE	315	ENVIRONMENTAL POLICY	1.0	CONTINUING					
	CIVE	345	FLUIDS MECHANICS	1.5	CONTINUING					
	CIVE	350	STRUCTURAL ANALYSIS	1.5	CONTINUING					
	CIVE	385	GEOTECHNICAL ENGINEERING	1.5	CONTINUING					
	CSC	349A	NUMERICAL ANALYSIS	1.5	CONTINUING					

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