

Selena Shew

shewselena@gmail.com | 778.230.2356 | <https://ca.linkedin.com/in/selenashew>

HIGHLIGHTS & QUALIFICATIONS

- 4th-year Integrated Sciences student (BSc) specializing in Data Science & Environmental Science
- Familiar with programming in Python to write functions and clean data
- Familiar with programming in R to perform statistical analysis and data visualization
- Two years of experience in spatial analysis of large datasets with ArcMap and ArcGIS Pro
- Competent at literature reviews and report writing
- Effective communication and teamwork skills from years of volunteer work and event planning

EDUCATION

Bachelor of Science – Integrated Sciences

Expected Graduation: May 2024

Discipline Focus: Data Science and Environmental Science

University of British Columbia (UBC), Vancouver, BC

Relevant Courses

CPSC 330 – Applied Machine Learning: Gained a strong understanding of various machine learning models and concepts such as decision trees, pipelines, recommender systems, survival analysis, NLP, and more; developed familiarity with training and applying models towards real-world case studies

DSCI 320 – Visualization for Data Science: Developed competence in data visualization techniques through Python's Altair library; gained confidence in being able to identify & convey significant trends and messages through the creation of visual charts

STAT 301 – Statistical Modelling for Data Science: Strengthened understanding of statistical algorithms such as linear/logistic regression, peeking, bandit, and variable selection; gained hands-on familiarity with these models through applications to various case studies using R

STAT 201 – Statistical Inference for Data Science: Developed further proficiency in simulation-based and classical methods for data analysis such as bootstrapping and producing confidence and prediction intervals; completed a final project conducting a hypothesis test using VPD crime data

CPSC 203 – Programming, Problem Solving, and Algorithms: Gained familiarity with the Python programming language

TECHNICAL SKILLS

- R, RStudio, JupyterHub
- Excel, SQL
- Python
- ArcMap, ArcGIS Pro
- Literature review, report writing

TECHNICAL PROJECTS

Vancouver Datajam – Hackathon 2023: “Tackling Climate Change”

- As the Workshops Manager, successfully led the organization of several data science-themed workshops such as Prompt Engineering, Intro to Python, and Machine Learning Pipelines to inform hackathon participants
- Mentored one of the teams who were new to data science to a third-place finish overall

GEOS 479 – Research in Geographic Information Science

- Conducted a statistical analysis to determine the correlation between COVID-10 vaccination rates and various demographic and socioeconomic factors via a generalized linear regression model and a multiscale geographically weighted regression model
- Created visualizations of our results using ArcGIS Pro

STAT 201 – Statistical Inference for Data Science

- Analyzed VPD crime data to determine the difference in mean number of bike crimes between days of the week through bootstrapping and hypothesis testing
- Utilized R and Jupyterhub to conduct the analysis
- Explained the methods used and the applicability of results to policy in a written report

RELEVANT WORK EXPERIENCE

Research Project Worker

September 2023 – May 2024

UBC Temporal Ecology Lab, Vancouver, B.C.

- Conducted a statistical analysis to determine variations of growth between different tree species for a research project
- Led the initiative to develop and implement a data scraping and cleaning process for a meta-analysis investigating the impact of various environmental conditions on seed germination
- Reviewed scientific journals for new & relevant research and presented them to the lab
- Assisted in a wide variety of general laboratory tasks such as taking scientific measurements, data entry, tree harvesting, etc.

Student Environmental Advisor Co-op

May 2022 – August 2022

Transport Canada, Vancouver, B.C.

- Edited and assisted writing the draft determination rationale in support of Transport Canada's environmental effects determination for a major energy project under s.82 of the IAA
- Conducted research and compiled notes for potential environmental initiatives and projects in Victoria Harbour
- Completed junior reviews of key technical documents for current projects
- Prepared and presented an overview of the stormwater and sanitary waste issues in Victoria Harbour to management
- Established a new repository of onboarding documents and helpful information for incoming co-op students on Microsoft Teams and SharePoint

Jr. Business Analyst Co-op

September 2021 – April 2022

Trulioo, Vancouver, B.C.

- Managed and administered the production of key data analysis studies for VIP, current, and potential clients through a proficient application of Excel and SQL
- Addressed and alleviated client questions and concerns through professional and thorough explanations of data analysis processes and workflows
- Successfully supported the company in achieving quarterly targets through inter-team collaboration and time management to reach project deadlines
- Aided in resolving analytical roadblocks through active engagement and proposing solutions