Summer 2021 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region.

- Visit the Sustainability Scholars Program website to learn how the program works and to apply.
- Be sure to review the application guide to confirm your eligibility before applying.

Applications close at midnight on Sunday January 31, 2021

Research project title

Design and development of a data extraction tool for digitizing and compiling building energy and emissions data

Project description

The City of Richmond receives extensive building energy modeling reports that include valuable details about the design, energy performance and operational emissions of the building. However, given the volume of the development and building permit applications and the extensiveness of the data, manual extraction and compilation of this data are cumbersome. Moreover, despite continued efforts to digitise its intake and review processes, the City still receives a significant number of paper reports, which adds to the difficulty of extracting and archiving the relevant data.

The proposed project seeks to design and develop a prototype for a data mining tool to extract desirable fields from energy modeling reports and store them in a database. The tool must have the capacity to read data from PDFs, spreadsheets and scanned documents.

Upon successful completion and trial, the tool will be made available to all municipalities in BC. This tool will also be valuable in populating the upcoming provincial building energy efficiency database (BERT).

Deliverables

- A scan of energy modeling data collection practices in other municipalities (BC, ON, QC)
- Assessment of interest in the tool from other municipalities and their particular needs
- Development of prototype for a data extraction tool that reads certain lines from PDF reports
- Full script for the data extraction tool along with detailed comments

- Draft user manual
- Final presentation in an announcement and launch event
- Final report or executive summary for the online Scholars Project Library
- Time permitting: graphic user interface, extension to scanned PDFs and spreadsheets

Time Commitment

- This project will take 250 hours to complete.
- This project must be completed between May 3 and August 13.
- The scholar is to complete hours between 9am-5pm, Monday to Friday, approximately 20 hours per week.

Required/preferred Skills and Background

☒ Excellent research and writing skills
☒ Demonstrated interest in sustainability
☒ **Statistical analysis**
☒ Excellent public speaking and presentation skills
☒ Strong analytical skills
☒ Ability to work independently
☒ Project management and organizational skills
☒ **Programming skills**
☒ **Demonstrated experience in Data mining (Python) a great asset**

Applications close **midnight Sunday January 31, 2021**
Apply here: Click here to apply
Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 19. Click here for details and to register.

Below are some links to useful resources to help you with your resume and cover letter (there are many more online). Some of these resources also provide information on preparing for your interview.

https://students.ubc.ca/career/career-resources/resumes-cover-letters-curricula-vitae

https://www.grad.ubc.ca/current-students/graduate-pathways-success

https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services