a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA

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Research Assistant Position: Data Science for Housing Research

We are seeking a talented and motivated Research Assistant to join an innovative project using Large Language Models (LLMs) to analyze thousands of hours of Vancouver City Council Meeting recordings, with the goal to unpack the housing development approval process and provide insight into the utility of LLMs for social science research. The project is co-led by Dr. Julia Harten (School of Community and Regional Planning) and Dr. Christos Thrampoulidis (Electrical and Computer Engineering).

Project Overview

Housing affordability is one of the most pressing issues of our time. This research project aims to better understand why proposals to build housing fail or succeed. We propose to leverage Large Language Models (LLMs) to analyze public records of city council meetings, where housing development decisions are made and documented in text and video format.

Responsibilities

The Research Assistant will contribute to the management of a computational pipeline to process and analyze city council meeting data. Key responsibilities include:

- Building and evaluating LLM-based algorithms for text classification tasks, including conversation-level analysis of linguistic style
- Conducting topic modeling and regression analysis
- Collaborating closely with Principal Investigators and other team members
- Contributing to publications and presentations of research findings
- Conducting review of the relevant literature

Qualifications

Required
- Enrolled in a graduate degree in Computer Science, Data Science, Urban Planning or related fields. **Advanced and motivated undergraduate students will be considered.**
- Strong experience in managing large datasets, data processing, and cleaning
- Proficiency in PyTorch programming with experience in deep learning applications
- Excellent programming skills, particularly in Python
- Strong analytical and problem-solving skills
- Ability to work independently and as part of a collaborative research team

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Preferred
- Experience with open-source LLMs and their APIs
- Background in or knowledge of urban planning, housing policy, or related social sciences
- Experience in interdisciplinary research projects

Position Details

This position requires commitment of a minimum of 10h/week, with flexibility for additional hours. We offer a competitive salary commensurate with experience as well as funding to support conference travel. The role is available immediately, with flexibility on start date for the right candidate.

How to Apply

Interested candidates should submit the following to Dr. Julia Harten (School of Community and Regional Planning) and Dr. Christos Thrampoulidis (Electrical and Computer Engineering):

1. Curriculum Vitae
2. Short statement outlining your interest in the project and relevant experience (max. 1 page)
3. Contact information for one reference

Please submit your material via email to julia.harten@ubc.ca and cthrampo@ece.ubc.ca with the subject line "LAST NAME FIRST NAME Research Assistant Data Science."

Applications will be reviewed on a rolling basis, and the position will remain open until filled.

Commitment to Equity, Diversity, and Inclusion

We are committed to recruiting to disrupt structural barriers. Equity and diversity are essential to academic excellence. We encourage applications from members of groups that have been marginalized, including on the grounds of sex, sexual orientation, gender identity or expression, racialization, disability, political belief, religion, marital or family status, age, and/or status as a First Nation, Metis, Inuit, or Indigenous person.

The research team is committed to creating a safe, supportive, and inclusive workplace for all team members.