



Postdoctoral Researcher Position: Data Science for Housing Research

We are seeking a talented and motivated Postdoctoral Researcher 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). The Postdoctoral Researcher will join an interdisciplinary team and have access to a variety of professional development opportunities.

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 Postdoctoral Researcher will lead 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

Qualifications

Required

- Ph.D. in Computer Science, Data Science, Urban Planning or related fields
- Strong experience in managing large datasets, data processing, and cleaning
- Expertise in natural language processing and machine learning, especially LLMs
- 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



Preferred

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

Position Details

This is a full-time position for one year, with possibility of extension. 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.

Depending on preference and availability, the Postdoctoral Researcher will be provided office space either within the facilities of the School of Community and Regional Planning or the Department of Electrical and Computer Engineering. The University of British Columbia is a global centre for teaching, learning and research, consistently ranked among the top public universities in the world and offers ample opportunities for professional development, including subject-specific media and instructional skills training.

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. Research statement outlining your interest in the project and relevant experience (max. 2 pages)
3. Two representative writing samples (preferably published in high quality, peer-reviewed venues)
4. Contact information for three references

Please submit your material via email to julia.harten@ubc.ca and cthrampo@ece.ubc.ca with the subject line “LAST NAME FIRST NAME Postdoctoral Researcher 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.