Mehdi Mohamadian

Address: ⌂ Vancouver, British Columbia, Canada
Phone: ☐ +1 (250) 863-2183
Email: ✉ *mehd.mohamadian@gmail.com*
LinkedIn: ☐ *linkedin.com/in/mehdi-mohamadian-1b413a83*
Website: ⊕ *mehmoh.com*

Key Competencies and Skills

Programming Languages: SAS, Python, SQL, Stata, R

Database: MySQL, PostgreSQL

Libraries: Pandas, Numpy, Seaborn, Scikit-learn

Machine Learning: KNN, Regression (OLS, Binary logistic, Ordered logistic, Multinomial logistic, Lasso, Ridge, Poisson, FE, Random Effect), Variance Decomposition, Mean Decomposition, Discriminant Analysis, Clustering, Cross-validation, Decision Tree, Random Forest, Neural Network, Principle Component Analysis

Tools: Tableau and Excel

Highly Analytical: able to extract key insights from data and then communicate them clearly and effectively

Multidisciplinary Background: strong knowledge in Math, Stats and Economics

Education

M.A in Interdisciplinary Studies, *University of British Columbia (UBC)*, Kelowna, Canada GPA(90.3%) 2019-2021
  - **Coursework:** Data Analytics, Machine Learning, Econometrics, PostgreSQL (Coursera)

M.A in Economics, *Allame Tabatabaei University (ATU)*, Tehran, Iran GPA(4/4) 2015-2017
  - **Coursework:** Econometrics, Applied Econometrics, Time Series, Microeconomics (I&II), Macroeconomics (I&II)

B.Sc. in Mathematics, *Khajeh Nasir Toosi University of Technology* (KNTU), Tehran, Iran 2006-2012
  - **Coursework:** Probability and Statistics (I&II), C++. Linear Algebra, Calculus (I&II&II)

Career Highlights

Statistician, *Provincial Health Services Authority*, Canada 2022-present
  - **Statistical analysis,** conduct statistical analysis using SAS and R for requests of external organizations such as Health Canada and Statistics Canada,
  - **Data Linkage,** perform data linkage to external databases using SQL and SAS.
  - **KPI development,** Develop indicators to evaluate cardiac health care's effectiveness, efficiency and equity in BC.
  - **Dashboard development,** develop Power BI dashboards to present results to sakeholders and public.

Research Assistant, *University of British Columbia*, Canada 2019-present
Responsible for various data related research projects:
  - **Data gathering:** found suitable database to answer different research questions regarding voting behavior and public opinion in Canada and other countries
  - **Data preprocessing:** wrote more than 10000 lines of code to clean data using Python and Stata
  - **Data analysis:** implemented different models including logistic, multinomial logistic, OLS, FE regressions to analyze the importance of different factors
  - **Academic writing:** conducted literature review and wrote final articles

Teaching Assistant, *University of British Columbia*, Canada 2019-2022
- **Teaching assistant head:** managed and led 12 teaching assistants in a course with more than 350 students
- **Data mentor:** graded, mentored and provided feedback on students' data selections, quantitative methods, and model interpretation in Quantitative Methods for Politics course
- **Teacher:** gave tutorials in Intermediate Micro-economics to classrooms of 100 students
- **Assistant:** graduate teaching assistant in different courses including but not limited to Money and Banking, Micro-economics, and Quantitative Methods in Politics

Publications and Projects

"Public Attitudes towards Immigration in Canada: Evolution and Determinants." Master's thesis, University of British Columbia
Used Canadians Election Studies data to explore how attitudes towards immigration changed from 1988 to 2019 and what factors determine the change
- **Data preprocessing:** used Python and Stata to clean data (more than 10,000 lines of codes)
- **Analysis:** Used R and Stata to implement different models including OLS, ordered logistics, FE and variance/mean decomposition
- **Visualization:** used Python, Stata, R and Tableau to get insight from data and to present results

"Explaining Party Loyalty among Ethnic Minorities: The Case of the Canadian Liberal Party." with Professor Maxime Heroux-Legault, under review
Used 30 years of data to explain why visible minority Canadians are more likely to vote for the Liberal party than white Canadians
- **Data analysis:** used Stata to clean data and implemented logistic regression to analyze the effects of different independent variables

"Housing Rental Price in Canada", personal project
Github
- **Data gathering:** scraped more than 5000 data points in 32 cities of Canada
- **Visualization:** used python libraries including seaborn, matplotlib plotly and folium to visualize data
- **Machine learning:** implemented different machine learning models including Regression (Linear, Ridge and Lasso), Decision Tree and Random Forest to predict rental price in Canada

"Who are against Immigration in Canada?" Data Analytics course project
Github, Tableau
Used Canadian election studies data in 2019 to understand which groups of individuals oppose immigration
- **Analysis:** Developed a regression model using Python to understand the importance of different socio-demographic characteristics on attitudes towards immigration
- **Visualization:** Developed Tableau dashboard to get insight from data and present the results