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# KRISHNA PAUDEL

#### **ECONOMICS & DATA SCIENCE STUDENT**

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www.krishnapaudel.ca

## **EDUCATION**

SEP 2021 - DEC 2025

#### Bachelor's Degree in Economics, University of British Columbia, Vancouver, BC

- 4.0/4.33 GPA, Dean's List Recipient (x3)
- Specialization in Econometrics and Data Science
- UBC Centennial Scholars' Award Recipient

## **SKILLS**

- Languages & Tools: Python, R, SQL, STATA, Excel, Power BI, Jupyter Notebook, Git, Microsoft Azure, Google Cloud Platform
- Academic Research: Quantitative data analysis, regression modeling, statistical inference, hypothesis testing, survey design
- Statistics & Data Science: Time series analysis, panel data methods, predictive modeling, data cleaning & preparation
- Frameworks & Libraries: Scikit-learn, PyTorch, TensorFlow, Random Forests, RNNs, Transformers (HuggingFace), Matplotlib
- AI & LLMs: API integration, OCR, model fine-tuning, prompt engineering, GPT, Llama 3, FastAPI, local LLM deployment

## **PROJECTS**

May 2025 - Aug 2025

## Bank of Canada: Governors' Challenge, UBC Vancouver School of Economics - Vancouver, BC

• Developed a Bayesian VARX model to forecast inflation, incorporating Monte Carlo simulations to optimize interest rate paths under diverse macroeconomic scenarios, and recommend an optimal monetary policy stance to the Bank of Canada's Governing Council.

FEB 2025 - PRESENT

## Independent Software Projects for the City of Delta - Delta, BC

- Developed a LLaMA 3-powered ML platform that converts natural language into precise SQL queries by training on historical query logs and custom metadata, significantly increasing operational efficiency and query accessibility for non-technical municipal staff.
- Created a fully automated form processing tool that utilizes OCR technology to extract handwritten data from over 500 monthly submissions and cross-references entries against city databases using a fuzzy matching search engine, cutting processing time by over 90%
- Built a hybrid ML model for time-series anomaly detection that integrates supervised and unsupervised learning methods to flag
  potential water leaks from monthly meter consumption data across city properties, reducing manual review workload by over 70%.

## **EMPLOYMENT HISTORY**

JAN 2025 - PRESENT

## Finance Intern, Finance Department, City of Delta - Delta, BC

- Supported financial reporting and operational planning by conducting accounts receivable reconciliations, investigating discrepancies in transaction-level data, validating payment records, and preparing ad hoc reports for senior staff.
- Analyzed past utility and property tax payments to help forecast future revenues, recommend property tax and utility rate adjustments, and support city budgeting decisions related to service costs, seasonal trends, and long-term financial planning.
- Gained hands-on experience with the city's SQL database architecture to automate financial data extraction and replace manual lookup
  processes, significantly improving the speed and accuracy of revenue analysis, reconciliation tasks, and internal financial reporting projects.

JUN 2025 – SEP 2025

## Research Assistant, Department of Political Science, University of British Columbia - Vancouver, BC

- Scraped, compiled, and cleaned large-scale datasets from congressional archives, public statements, and demographic sources to examine the relationship between U.S. congressmembers' religious affiliations and their policy outcomes.
- Performed statistical inferencing analysis using R and STATA, running panel regression models and conducting hypothesis testing to identify
  long-term patterns in legislative voting behavior to produce insights for an academic publication on religion and politics.

MAY 2024 - AUG 2024

## LLM Development Intern, JKP - Lucknow, India

- Assisted in developing an LLM-based AI chatbot for a non-profit organization, using a Retrieval-Augmented Generation (RAG) architecture combined with Model Context Protocol (MCP) to enable accurate, context-aware responses.
- Applied natural language processing (NLP) techniques to preprocess and tokenize large volumes of text, audio transcripts, and video
  content, and assisted in fine-tuning the model by preparing instruction-aligned datasets to improve relevance and response quality.

# **CERTIFICATIONS**

APR 2025 – IN PROGRESS

# Microsoft | AI & ML Engineering Professional Certificate

 Developed proficiency in designing and deploying scalable AI solutions and MLOps workflows on Azure, including model management, performance tuning, and monitoring.

NOV 2024 - APR 2025

# Google | Advanced Data Analytics Professional Certificate

• Mastered Python-based exploratory data analysis, statistical modeling, regression, and machine learning to derive actionable insights and communicate results effectively.

JAN 2025 – IN PROGRESS

## IBM | Data Architecture Professional Certificate

• Built expertise in SQL-based data modeling and enterprise system design, including relational database architecture, data warehousing, and ETL pipelines.

# **LANGUAGES**

