

Arunim Garg

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SUMMARY

A dynamic and responsible individual with a strong passion for leveraging data and machine learning to make a positive impact on people's lives. Proficient in R and experienced in Scala and python, I possess two years of hands-on industry experience in data analysis and a deep curiosity to develop ML models.

PROFESSIONAL EXPERIENCE

Data Research Analyst

Lakehead University & TBRHSC - Part-time

Jan 2020 – Oct 2021 & Jan 2023 –Present, Thunder Bay, ON & Remote

- Investigated family physicians (FPs) billing codes to improve resource planning in Ontario, addressing the disparity between rural and urban populations.
- Utilized R to analyze, predict, and visualize ICES physician database and OHIP physician billing database, handling 30K and 99M observations, respectively.
- Developed methodologies to analyze over 200M records of FPs annually, resulting in more accurate estimates of physician demand and supply in Ontario.
- Conducted hypothesis testing to evaluate our findings about physicians in rural areas, utilizing statistical analysis in R to derive actionable insights.

Data Engineer

Insurance Corporation of British Columbia (ICBC) - Full-time Contract

May 2022 – November 2022, North Vancouver, BC

- Built 5 scalable data pipelines, processing billions of records from diverse sources to generate comprehensive summary tables for advanced analytics.
- Developed efficient ETL data pipelines using Scala, Spark, and the Hadoop ecosystem, optimizing processing time by up to 80%.
- Utilized tools such as Apache Hive, DBeaver, and RDBMS (Oracle and MySQL) for data analysis and to support ad hoc requests.
- Collaborated in an agile development environment with data engineers and QA analysts, actively participating in the new-hire buddy system and company social events.

Data Analyst

ZLC Financial - Full-time Contract

January 2022 –April 2022, Vancouver, BC

- Led CRM migration, optimizing client relations for 20+ financial advisors through data extraction, auditing, and consolidation of financial data.
- Accelerated migration timeline by a month through the implementation of a new pipeline for auditing large datasets, automating data integrity review.
- Effectively communicated technical results to non-technical stakeholders, facilitating informed decision-making and driving business growth through data analysis and actionable recommendations.
- Reported directly to the CIO, providing daily touch-point meetings, developing weekly progress reports, and documenting procedures.

ML Developer

Communica - Part-time Contract

November 2020 – July 2021, Calgary, AB - Remote

- Automated text-analyzing processes for a public affairs company by preparing an end-to-end NLP solution for text extraction, text summarization, and text proof-reading using a scalable ETL pipeline with Microsoft Azure services.
- Trained and tested a LUIS model on 1600 email documents to extract text fields with a 98% accuracy.
- Developed and implemented scalable python applications for text retrieval and indexing that reduced email review time by 200x.
- Gathered client requirements to prepare and deliver quality product designs on time and on budget.

RESEARCH PAPERS

To investigate the role of machine learning in medical research

Published – Computer Science Review Volume 40 • May 2021

Predicting family physicians based on their practice using machine learning

Published – 2021 IEEE International Conference on Big Data (Big Data) • December 2021

Using machine learning to assess the range of services provided by family physicians in Ontario, Canada

Presented – International Conference on Intelligent Biology and Medicine 2022 • August 2022

EXTRACURRICULAR

'Flatten the curve, Then Recover the Economy' Virtual Hackathon

Alberta Innovates • May 2020

- Developed an AI chatbot that can answer any COVID-19 related question to help increase awareness and help flatten the curve.
- Used AWS services including Sagemaker, Kendra, Lambda, DynamoDB, and Cognito and extended the Chatbot to be used with Amazon Alexa.

EDUCATION

Master of Computer Science, Artificial Intelligence Specialization

Lakehead University (LU) • Thunder Bay, ON • May 2021 • 90%

Bachelor of Science in Information Technology

Minor in Business Administration • Fairleigh Dickinson University (FDU) • Vancouver, BC • December 2018 • 3.65 (4.0 Scale)

SKILLS & NOTABLE COURSES

Python (Tensorflow, Keras, PyTorch), R, SQL, Scala, Git (version control), Apache Spark, Apache Hive, Java, DBeaver, Hue, ELT/ETL data pipelines. Big Data, Machine Learning, Deep Learning, NLP, ML Specialization and Prompt Engineering for LLMs by DeepLearning.ai