Siddharth Grover

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EDUCATION

Master of Science (MSc) Data Science
University of British Columbia, Vancouver, BC 4.0/4.0

Coursework: Cloud Computing (97%), Algorithms and Data Structures (96%), Software Development (94%), Advanced Machine Learning, Unsupervised Learning, Spatial and Temporal Models, Causal Inference, Statistical Inference, Regression

Bachelor of Applied Science (BASc) Chemical Engineering
University of British Columbia, Vancouver, BC 3.8/4.0

EXPERIENCE

Data Scientist Jan 2024 - Present
University of British Columbia, Vancouver

- Built a Retrieval Augmented Generation (RAG) LLM (GPT-4) app that processes information from external sources using APIs.
- Developed deep learning solutions to identify anomalies within manufacturing process (presenting results at PAPTAC conference).
- Analyzed 30+GB of data using PySpark to identify critical sensor issues.

Graduate Teaching Assistant Sep 2023 - Apr 2024
Sauder School of Business, UBC, Vancouver

- Designed and graded assignments and project reports for over 800 students in Time Series Analysis, Introductory Machine Learning (ML), and Introductory Statistics, and Business Analytics courses.
- Delivered lectures about Flask and Rest API development, Time Series Forecasting Methods, and more.

Data Analyst Jan 2022 - Sep 2023
IDP Consulting, Burnaby, BC

- Applied Markov Chain Monte Carlo to conduct comprehensive target price analysis for over 50 equities. Designed LSTM networks and transformers for equity price evaluation, resulting in successful identification of undervalued small-cap companies with an average upside of 12%.
- Built dashboards and dynamic visualisations using PowerBI, DAX, and queried using SQL to share KPIs with stakeholders.
- Developed a web app using Flask server and REST API, and React for front-end.

SKILLS

Languages	Python, R, C/C++, SQL (Postgres), HTML/CSS
Software	QGIS, Tableau, PowerBI
Tools	Git, Docker, TravisCI, Jenkins CI/CD, Flask, Apache Spark, Amazon Web Services (AWS), VS Code
Libraries	PyTorch, TensforFlow, Keras, Hugging Face, Statistics, Matplotlib, Altair

PROJECTS

MSc Capstone Project - Rio Tinto Exploration (RTX) *Computer Vision, Python, TensorFlow, Keras, QGIS, GeoPandas*
Developed an image segmentation deep learning model to identify seismic faults using a 'Residual Attention UNet'. Achieved 0.69 IoU and 85%+ precision and recall on test data.

Undergraduate Thesis - Data Analytics and Intelligent Systems Lab at UBC *Python, Scikit-learn, Tableau*
Developed a data-driven bottleneck identification model for a manufacturing unit using XGBoost and Random Forest, achieving 80%+ accuracy in identifying bottlenecks. Created Tableau dashboard to visualise trends and metrics in the production process.

PUBLICATIONS AND CONFERENCES

PAPTAC Paperweek Conference, Montreal *Feb 2025*
Unsupervised Anomaly Detection for Thermomechanical Pulping Time Series using Reconstruction Methods

Energy Reduction in Mechanical Pulping Meeting, Vancouver *Nov 2024*
Anomaly Detection for Predictive Maintenance in the Pulp and Paper Industry