Arshdeep Kaur

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SUMMARY

Machine Learning and Data Science professional with experience in financial modeling, predictive analytics, anomaly detection, and ETL automation. Skilled in translating academic knowledge into real-world ML applications, with strong proficiency in Python, SQL, and deep learning libraries. Currently completing a Master's in Data Science & Analytics with a focus on risk forecasting and fund valuation. Passionate about responsible AI, model interpretability, and deploying ML solutions that drive measurable impact in financial services.

TECHNICAL SKILLS

- **Languages & Tools**: Python, SQL, R, Git, Bash, LaTeX
- **ML Libraries**: PyTorch, scikit-learn, XGBoost, LightGBM, TensorFlow
- **Data**: Pandas, NumPy, Airflow, Spark, NoSQL, REST APIs
- **Cloud/MLOps**: AWS (S3, EC2, Redshift), MLflow, Docker (basic), Jupyter
- **NLP/Explainability**: LLMs, SHAP, Lime
- **Visualization**: Power BI, Tableau, Matplotlib, Seaborn

WORK EXPERIENCE

Cybereconn - AI & Cybersecurity Tech Startup **Chandigarh, India**

Data Scientist *Jun 2023 - Apr 2024*

- Built and deployed ML models (classification, regression) for operational risk detection in financial transaction logs, reducing false positives by 25%.
- Designed anomaly detection pipelines using time-series and probabilistic methods for fund performance monitoring.
- Automated data ingestion and preprocessing with Python, SQL, and Airflow, increasing throughput by 30%.
- Collaborated with product and compliance teams to ensure AI model fairness and audit-readiness under financial governance.
- Produced model explainability reports using SHAP to support internal decision-making processes.

Data Analyst Intern *Mar 2023 - May 2023*

- Conducted EDA and built initial ML prototypes to support internal complaint prediction and trend analysis.
- Integrated semi-structured datasets (CSV, JSON, Excel) to unify customer service metrics across departments.

PROJECT EXPERIENCE

University of Calgary **Calgary, Alberta**

Investment Fund Modeling & Risk Forecasting *May 2025 - Present*

- Processed 30,000+ records to model fund-level inflows, NAV shifts, and risk exposure using Python, SQL, and predictive modelling.
- Applied **LLMs** for automated summary generation of fund strategy insights and sentiment drivers.
- Used causal inference to identify potential impact drivers on portfolio volatility.

PUBLICATION

A. Kaur, D. Verma, and N. Kaur. *Utilizing Quantitative Data Science Salary Analysis to Predict Job Salaries 2022*

2nd International Conference on Innovative Sustainable Computational Technologies (CISCT), IEEE, Dehradun, India, pp.1–4. DOI: 10.1109/CISCT55310.2022.10046491

EDUCATION

University of Calgary **Calgary, Alberta**

Master of Data Science and Analytics (Business Analytics) *Graduation Date: Sep 2025*

***Relevant coursework**: Machine Learning, Time-Series, Financial Forecasting, Optimization, Responsible AI*