

Daniel Guo

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WORK EXPERIENCE

Ericsson

May 2024 – August 2025

Cloud RAN Data Scientist Intern

Ottawa, ON

- Built and automated **end-to-end ETL (Extract, Transform, Load)** pipelines to extract, transform, and clean large-scale telecom **XML performance datasets**, enabling downstream **feature engineering and ML model training**.
- Developed a **Python-based ML** analytics tool using **Pandas, NumPy, SciPy**, and **scikit-learn** to detect Cloud RAN network anomalies, reducing manual KPI analysis time by **80%**.
- Engineered statistical and ML-driven features from 4G/5G RAN metrics to support **trend detection, anomaly identification, and performance monitoring**.
- Designed **Grafana dashboards** backed by **Prometheus** and **SQL queries** to visualize real-time model outputs and network health metrics for engineering teams.

Island View Camping

May 2022 – September 2022

Software Developer

Remote

- Built a campground reservation and booking system using **Java, Python**, and **SQL Server**, supporting real-time availability search, booking requests, and campsite administration.
- Implemented comprehensive **JUnit test coverage**, improving code quality and reducing booking logic errors.
- Conducted exploratory data analysis on historical reservation data to identify occupancy trends and edge cases, supporting data-driven refinements to booking and availability logic.

EDUCATION

University of Ottawa

Expected Graduation: December 2026

Honours B.Sc. in Computer Science and Honours B.Sc. in Mathematics (**Data Science**)

Ottawa, ON

Relevant Coursework: Data Science, Machine Learning, Data Structures, Algorithms, Databases,

Operating Systems, Regression Analysis, Time Series Analysis, Statistics, Multivariable Calculus, Linear Algebra

UNIVERSITY PROJECTS

S&P 500 Finance Dashboard

November 2025

- Built an end-to-end **machine learning analytics platform** for the S&P 500 using Python, pandas, NumPy, scikit-learn, Panel, hvPlot, and Prophet, applying PCA, K-Means clustering, and time-series models to uncover patterns in cross-sectional and longitudinal market data.
- Designed a scalable **data engineering and feature pipeline** with sqlite3 and pandas to automate feature extraction, compute risk/volatility features, generate cluster-based representations, and produce a fully algorithmic **Purchase Index** signal for downstream ML decisioning.

Sportsbook Arbitrage Automation Tool

February 2025

- Built a **Python-based** arbitrage betting system using **BeautifulSoup, Selenium, pandas, and NumPy** to scrape sportsbook odds and automate probability calculations.
- Designed algorithms to compute implied probabilities and identify guaranteed arbitrage opportunities, streamlining real-time decision-making across multiple betting markets.

ADDITIONAL

- **Programming Languages:** Python, Java, R, C, C++, JavaScript, HTML/CSS, SQL, Bash (Shell scripting)
- **Libraries & Frameworks:** Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, TensorFlow, PyTorch, Flask, FastAPI
- **Tools & Platforms:** Git, GitHub, Gerrit, Docker, Jenkins (CI/CD), Jupyter Notebook, Power BI, Excel
- **Operating Systems:** Windows, Linux (Ubuntu – development & command-line experience)