

# Arina Veprikova

Canada (open to relocation) | Available May 2026

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## TECHNICAL SKILLS

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**Languages:** Python, SQL, R, C++, Java, MATLAB

**Analytics & ML:** pandas, NumPy, scikit-learn, time-series forecasting, feature engineering, cross-validation, out-of-sample evaluation

**Data & Systems:** SQLite (schema design, queries), BigQuery (analytics + forecast workflows), Git/GitHub

**BI & Visualization:** Power BI, Tableau, matplotlib, plotly, ggplot2, TradingView (Pine Script overlays)

**Excel:** PivotTables, XLOOKUP/INDEX-MATCH, SUMIFS, data validation, conditional formatting, audit-ready templates

## EDUCATION

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**Simon Fraser University (SFU)**

*BSc, Data Science (Minor: Finance) — Expected 2028*

*Selected coursework:* Database Systems (CMPT 354), Data Structures (CMPT 225), Linear Algebra, Linear Optimization, Business Statistics, Accounting, Economics

**Burnaby, BC**

*Entering 3rd year (Jan 2026)*

## PROJECTS

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**Canada-Compliant Market Inefficiency Finder (Crypto)** <https://github.com/areenve/market-inefficiencies>  
(Python, SQLite, TradingView (Pine))

- Built an end-to-end pipeline to stream public BTCUSD quotes and store tick-level bid/ask/mid data in SQLite for reproducible, audit-friendly research.
- Implemented inter-venue spread/dislocation detection (bps) with realistic trading frictions (fees + half-spread + slippage), including a **6 bps** total-cost threshold and a **300 ms** persistence filter to reduce noise.
- Produced reviewable outputs (event intervals, KPIs, histograms/time-series plots) and TradingView overlays to validate signals directly on charts.

**Portfolio Risk Dashboard (Power BI, Python/SQL)** <https://github.com/areenve/portfolio-risk-dashboard>

- Designed an interactive dashboard to monitor portfolio value, daily return & 30D volatility, drawdowns, and top risk contributors with slicers by date, asset class, and sector.
- Implemented stress-scenario views (baseline vs shock windows such as COVID crash / worst 30 trading days) to communicate downside behavior clearly to non-technical users.

**Multifractal Features for Cross-Sectional Volatility Forecasting (S&P 500) (R/Python)** <https://github.com/areenve/fractal-vol-forecast>

- Built a daily panel from WRDS exports (returns + market cap) and enforced a strict train/test split for credible out-of-sample evaluation.
- Implemented HAR-L baselines (OLS + leverage proxy) and extended them with MF-DFA features on rolling **252-day** windows ( $\Delta H$ ,  $H(q=2)$ ,  $\tau$ -width).
- Trained Elastic Net (CV-selected regularization) and quantified horizon performance (5/10/22 trading days), comparing baseline vs MF-augmented models to test whether structure improves forecast accuracy.

## EXPERIENCE

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**LLC “AuditDelo”**

*Junior Accountant / Data Analyst*

**Irkutsk, Russia**

*Feb 2022 – Dec 2024*

- Automated recurring audit workpapers in **Excel** (templates, validations, standardized controls), cutting prep time per organization by **~40%** and improving traceability.
- Processed and QA-checked **~10 organizations/week** (annual audit documentation), maintaining accuracy and consistent formatting under tight deadlines.
- Reconciled exceptions across client records and audit requirements; partnered with auditors, senior managers, and client finance teams to resolve discrepancies and submit final packs on time.
- Supported AR follow-ups with counterparties on outstanding balances; maintained records in **Excel** and **1C** with strict confidentiality.
- Improved throughput by refining checks and workflow (from **5–10 hrs** per org initially to **1–3 hrs** depending on complexity).

## ACTIVITIES

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CAN-CWiC Poster Presenter | SFU Data Science Club Member | SFU DSSS Hackathon Participant (2026)