Hriesha Popat

+1 929-400-5445 | hpopat@uw.edu | LinkedIn | github.com/hriesha

Education

University of Washington Seattle, WA

Bachelor of Science in Data Science, Minor in Computational Finance and Risk Management *Sep. 2023 – June 2027*

Experience

Quantitative Research Intern June 2025 – Sep. 2025

QiCap.AI *Bengaluru, India*

- Built intraday momentum/mean-reversion MF signals on Indian equity futures; normalized features (robust z-scores), ran multi-horizon tests, and assigned systematic long/short positions across NIFTY-100 and BankNifty.
- Expanded single-stock signals into a cross-signaling framework: used strong constituent signals to inform index-level moves; contrasted signal- vs trading-space behavior and recommended ensemble over standalone.
- Designed pair-trading across 110 stock pairs: calculated rolling correlations and synchronized lookback-spread thresholds. Remediated alpha by gating entries with a reversion signal, increasing alpha returns by 42%.
- Adapted and extended the Supertrend indicator into an intra-day alpha: calibrated TR bands, engineered a robust distance-to band z-score for cross contract comparability, signal-tested across multiple horizons and thresholds.
- Led evaluation of ML models for intraday return prediction (linear regression and tree-based methods). Applied PCA to de-correlate inputs and curb overfitting.

Teaching Assistant Sep. 2025 – Present

iSchool, University of Washington *Seattle, WA*

- Teaching assistant for INFO330: Databases and Data Modeling with Professor Sam Otim.
- Facilitating weekly classroom sections, helping students with relational models, applications of database designs, SQl coding, entity-relation modeling, and three-tier architectures.
- Designing content slide decks and programming assignments for students.
- Hosting weekly office hours, providing individual support, mentorship, and code reviews.
- Grading student homework, exams, code, and models. Providing detailed feedback as necessary.

AI Training Associate Nov. 2024 – April 2025

Outlier AI *New York, NY*

- Developed high-quality training/evaluation datasets by annotating and refining large corpora in Java and Python, improving NLP accuracy by 15%
- Curated and solved-graduate- and undergraduate-level math problems (calculus, probability, statistics, linear algebra) to expand LLM reasoning coverage and performance.
- Built a lightweight pandas script to flag nulls, type errors, and out-of-range values in annotation batches, reducing annotation errors by 30% and streamlining quality.
- Implemented custom evaluation metrics and a scoring harness (rubric-based, tolerance-aware numerics) to assess LLM solutions on complex math tasks and guide model improvements.

Projects

Premier League Predictor Model | *Python, pandas, requests, Matplotlib, NumPy* Aug 2025 - Present

- Built an end-to-end ML workflow pulling FBR API data with local JSON caching and retries for robustness.
- Engineered prev-season rank features (home/away + delta) with optional pre-season friendlies PPG blend.
- Trained a multinomial logistic model on prior seasons with walk-forward evaluation.
- Output fixture-level win/draw/loss probabilities; canonicalized team names and handled season fallbacks.

Drug AE Comparison Model | *K-Means clustering, ML, SciPy, sklearn, Git* April 2025 – June 2025

- Built a sklearn clustering workflow on the UCI Medicinal Side Effects DB.
- Chose the cluster count via Elbow and confirmed with a hierarchical dendrogram.
- Ran a K-Means and Agglomerative clustering, compared demographics and extracted centroids to profile groups.
- Compared clusters as High/Medium/Low risk profiles and delivered plots for comparison.

Technical Skills

Languages: Java, Python, SQL, R, html, CSS, JavaScript, Ruby, React, Node.js, TypeScript, OCaml, C/C++, Swift
Frameworks: React, Node.js, Firebase, Docker, AJAX, Postgres, JUnit, XCode, DBeaver
Relevant Coursework: Data Structures & Algorithms, Linear Algebra, Applied Mathematics, Statistics & Probability