

Data Science & Math double major at Purdue. Experience spans data pipelines, DS/ML algorithms, statistics, and financial risk analytics.

TECHNICAL SKILLS

Languages Proficient: Python (pandas, NumPy) and R **Experience:** SQL, Java, and C++
Tech Stack Docker, Git, Maven, FastAPI, Tableau, Excel

EXPERIENCE

Treasury Intern

Cisco

Jun 2026 – Aug 2026

New York, NY (hybrid)

- Developed the treasury team's data tooling in Python (pandas, NumPy), packaged as a CLI tool adopted by the entire team.
- Rebuilt the team's Value-at-Risk model, replacing historical volatility with implied volatility for forward-looking risk forecasting.
- Built an explainable transaction classifier (K-Means clustering with a decision-tree surrogate) covering 100,000+ transactions, strengthening the accuracy of transaction categorization; recommendations reviewed and adopted by the cash team.
- Created an Excel bank-revenue dashboard evaluating ~20 counterparty banks on trade execution and long-run markups, plus an agentic AI workflow generating broker analysis from static buyback sheets.

Webmaster

Purdue Crew

Mar 2026 – Present

West Lafayette, IN

- Designing and maintaining the website for Purdue's rowing team, found at purduecrew.com.
- Developing a portal for athletes, coaches, and parents to interact with a SQLite database of athlete metrics, race schedules, and workout plans.

RESEARCH

Machine Learning Research — Quantitative Finance

UNC Charlotte

Summer 2026 – Present

Remote

- Investigating how neural-network option pricers hold up under the FRTB P&L-attribution test, using a validated evaluation harness built over three years of real FX market data.
- Co-authoring a paper on the findings (in preparation; not yet submitted).

PROJECTS

Aquarank Scraper

Mar 2026 – Present

- Developed a robust Scrapy tool that scrapes three incomplete web databases into SQLite, imputing missing features with K-nearest neighbours to preserve data integrity.
- Implemented a documented FastAPI access layer and containerized the tool in Docker; ongoing exploratory analysis and feature engineering for scoring aquarium-fish compatibility.

NYC Crime Rate Case Study

Dec 2025 – Feb 2026

- Generated data-driven conclusions from a large dataset of all police stops in NYC and presented findings in a professional setting.
- Developed a suite of regression models to predict future crime rates, using k-fold cross-validation to validate model fit.

EDUCATION

B.S. Data Science & B.S. Mathematics, Purdue University

May 2028

Probability, Statistics in R, Data Science, Real Analysis, Linear Algebra, Stochastic Calculus (self-study)

Upcoming (2026–27): Statistical Theory, Numerical Methods, Advanced Linear Algebra

EXTRACURRICULAR

- Full-time student athlete for Purdue Men's Rowing, committing 20 hours a week and competing nationally. Finished 7th nationally in May 2025.