JARED MAHOTIERE

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SUMMARY

Quantitative strategist candidate for equity derivatives support with strong C++/Python engineering, numerical modeling discipline, and production analytics delivery.

EDUCATION

Purdue University - B.S. Electrical Engineering Technology (Computer Engineering Technology)
Minor: Computer & IT | Certificate: Entrepreneurship & Innovation | Expected May 2026
Relevant Coursework: DSP, Advanced DSP, Embedded Digital Systems, Advanced Embedded Digital Systems (in progress), Industrial Controls, Wireless Communications

LEADERSHIP & ORGANIZATIONS

Delta Tau Delta (Campus Chapter): DEI Chair | **National Society of Black Engineers (NSBE):** Member

SKILLS

Languages: C++, Python, SQL, C | Quant Methods: probability/statistics, numerical modeling, time-series analysis, model validation, feature engineering | Data/Modeling: pandas, scikit-learn, XGBoost, Prophet, PySpark | Engineering: reproducible analytics pipelines, GitHub Actions, Docker, AWS, PostgreSQL, SQL Server | Communication: model/results presentation to technical and non-technical stakeholders

EXPERIENCE

Nucor Corporation - Software/Automation Engineering Intern | Darlington, SC | May-Aug 2024 and May-Aug 2025

- Developed and tuned Oracle QMOS + SQL Server query workflows (multi-table joins, priority logic) used by quality, sales, shipping, and mill operations.
- Led cross-functional validation and rollout planning (test cases, sign-offs, punch-list closure) with operations, maintenance, quality, sales, and shipping for on-time delivery.
- Built the Hold Disposition Management system in Blazor Server (Telerik UI), integrating Oracle QMOS with a SQL Server-backed priority system to centralize hold-status decisions.
- Implemented Quartz.NET automation for weekly hold/priority reports to 4 departments (Mill 1, Mill 2, Saw Cut, Scrap), replacing manual report distribution.

PROJECTS

Retail Sales Forecasting Research Stack - Python, XGBoost, Prophet, FastAPI
Links: GitHub: github.com/jmahotiedu/retail-forecast-dashboard, Live: retail-forecast-alb-104304097.us-east-1.elb.amazonaws.com

- Built reproducible forecasting/model-validation workflows across 1,115 stores (XGBoost R2=0.91, 11% MAPE) with test-backed deployment and performance tracking.

workflow-orchestrator - TypeScript, Redis Streams, Postgres
Links: GitHub: github.com/jmahotiedu/workflow-orchestrator, Live: workflow-orc-demo-alb-1577468805.us-east-1.elb.amazonaws.com

- Implemented deterministic task-state, idempotent retry, and failure-recovery controls for repeatable analytics workflows (25/25 successful runs in 15.94s).

Telemetry Node - ESP32, C/C++, DSP, Python
Links: GitHub: github.com/jmahotiedu/telemetry-node

- Developed deterministic signal-acquisition firmware and CRC-validated decode pipelines for repeatable numerical analysis and debugging workflows.

OPEN SOURCE CONTRIBUTIONS

- Bloomberg comdb2 (Java): fixed JDBC metadata cursor isolation to prevent getTables() result-set invalidation during version lookup (PR #5731).
- Bloomberg comdb2 (C/C++/SQL): backported targeted SQLite security fixes and validated with a source-build harness matrix (PR #5743).
- Cross-repo PR history (PicoClaw + Bloomberg): https://github.com/pulls?q=is%3Apr+author%3Ajmahotiedu+org%3Asipeed+org%3Abloomberg.