

# JARED MAHOTIERE

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## SUMMARY

Data engineer with hands-on pipeline and ML forecasting experience across Kafka, Spark, Airflow, AWS, production SQL Server/QMOS data management, and open-source systems contributions.

## EDUCATION

**Purdue University** - B.S. Electrical Engineering Technology (Computer Engineering Technology)

Minor: Computer & IT | Certificate: Entrepreneurship & Innovation | Expected May 2026

## LEADERSHIP & ORGANIZATIONS

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

## SKILLS

Python, SQL, PySpark, C# | Kafka, Airflow, Redshift, S3, Great Expectations | PostgreSQL, SQL Server, Redis | scikit-learn, XGBoost, Prophet, pandas, Streamlit | Docker, Terraform, GitHub Actions, AWS (ECS, ALB, RDS, ElastiCache, ECR, MSK, EMR, MWAA)

## EXPERIENCE

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

- Managed and analyzed production data in SQL Server/QMOS databases; developed optimized queries and recommended new tables/columns to support process improvement.
- Developed and maintained Blazor/.NET real-time operator dashboards and robust back-end services, enhancing process transparency and improving steel production workflows.
- Built automated reporting and alert systems using Quartz.NET with real-time email notifications for maintenance and quality events, reducing manual monitoring and accelerating response.
- Collaborated with production teams and led project meetings; conducted comprehensive testing and validation with multi-disciplinary stakeholders while prioritizing deliverables and shipping on time with high safety and quality standards.

## PROJECTS

**IoT Streaming ETL Pipeline - Kafka, PySpark, Airflow, Redshift**

- Built streaming ETL with 100+ events/sec ingestion, data quality validation, medallion architecture, production monitoring/alerting, and Terraform cloud topology across MSK/EMR/MWAA/Redshift with cost-aware core deployment mode.

**Event Stream Platform - C#, .NET, WebSocket, WAL, Materialized Views**

- Built a durable event ingest/replay platform with WAL-backed persistence, materialized views, backfill/reconciliation workflows, and data-quality observability.

**Retail Sales Forecasting Dashboard - Python, XGBoost, Prophet, Streamlit, AWS ECS**

- Shipped a live forecasting product on AWS ECS with XGBoost  $R^2=0.91$ , 11% MAPE, production API/dashboard deployment, and 90%+ automated test coverage.

## OPEN SOURCE CONTRIBUTIONS

- PicoClaw (Go): 3 merged PRs on a 14.5k-star project, including provider protocol-family refactor (#213) and security/model hardening follow-ups; invited to Dev Group.
- Bloomberg comdb2 (C/C++/SQL): backported targeted SQLite security fixes for issue #3904 in PR #5743 (commit cede68b52), with source-build validation, harness runs, and a published security-fix verification matrix.
- PRs Under Review: Databricks CLI (#4504) auth-resolution fix; Google langextract (#359) cache-key hashing fix.