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 core-mode AWS deployment across MSK/S3/VPC/ECR with public-shell infrastructure while
  full EMR/MWAA/Redshift remains entitlement-gated.

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 $R2=0.91$, 11% MAPE, production API/dashboard
  deployment, and 90%+ automated test coverage.

OPEN SOURCE CONTRIBUTIONS
- PicoClaw (Go): merged PRs include provider protocol-family refactor (#213) and device-code auth interval fix (#56);
  security/reliability follow-up PRs remain open (#211, #251).
- 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.
- Open PRs: Databricks CLI (#4504) auth-resolution fix; Google langextract (#359) cache-key hashing fix.