JARED MAHOTIERE

Jared Mahotiere | Bear, DE | (302) 803-7673 | jmahotie@purdue.edu | linkedin.com/in/jared-mahotiere | github.com/jmahotiedu | https://jmahotiedu.github.io/

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, Great Expectations, Terraform | Project Link

- Built streaming ETL with 100+ events/sec ingestion, Bronze/Silver/Gold architecture, checkpointed recovery, Great Expectations validation, and Prometheus/Grafana observability; provisioned AWS core infrastructure across MSK/S3/VPC/ECR with Terraform.

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, FastAPI, XGBoost, Streamlit, AWS ECS | Project Link

- Shipped a live forecasting product on AWS ECS Fargate with XGBoost R2=0.91 and ~11% MAPE, FastAPI inference, Streamlit dashboard delivery, and 90%+ automated test coverage.

OPEN SOURCE CONTRIBUTIONS

bloomberg/comdb2 (PR #5743) - C/C++, SQLite Security | Project Link

- Backported targeted SQLite security fixes and validated source-build behavior with harness-backed checks.

databricks/cli (PR #4504) - Go, Auth/Config Resolution | Project Link

- Corrected bundle-context precedence to prevent non-bundle commands from resolving to the wrong workspace.

google/langextract (PR #359) - Python, Caching | Project Link

- Fixed cache-key hashing behavior to improve deterministic extraction and avoid cache collisions.