

THOMAS HOLLINGSHEAD

Great Mills, MD 20634 | (253) 604-8976 | tommyhollingshead@gmail.com | linkedin.com/in/thomas-hollingshead | Portfolio: CodexPrime

DATA SCIENTIST / DATA ENGINEER / ML ENGINEER— Python, SQL, pandas, scikit-learn

SUMMARY

Data-focused engineer with a background in aerospace/defense QA and hands-on software development. Skilled in Python and SQL for analytics, data modeling, and machine learning (regression, classification, and time-series forecasting), with experience building automation using Django and delivering rigorous inspection, validation, and root-cause analysis in high-stakes production environments with strict compliance requirements. Currently completing M.S. in Information Technology Management (Expected Spring 2026).

TECHNICAL SKILLS

Data Science & ML (Foundations): pandas • NumPy • scikit-learn • statsmodels • EDA • feature selection • clustering (K-Means) • regression (Linear Regression, Decision Tree) • time series (SARIMA) • model evaluation (MAE/RMSE/R², residual diagnostics)

Data Engineering & Analytics: SQL • data modeling (relational) • data cleaning • reproducible analysis notebooks

Software: Django • JavaScript/jQuery

Visualization: matplotlib • seaborn • Tableau (foundational) • Excel/Access

Quality & Systems: root cause analysis • test scripting • process validation • audits/inspection standards • documentation

Industry Tools: Cirris HiPot testing • Windchill • NALCOMIS/OOMA

SELECTED PROJECTS

Gasoline Price Forecasting (Python) — OLS regression, Random Forest forecasting, and SARIMA time-series modeling.

- Performed residual diagnostics and model evaluation; Random Forest achieved ~0.06 mean absolute error (historical comparison).
- Used correlation analysis and time-series diagnostics to explain drivers and volatility patterns in results.

Customer Segmentation & Spending Score Modeling (Python | scikit-learn)

- Cleaned dataset (filtered invalid values, checked nulls), produced descriptive stats and visual EDA (distributions, correlation heatmap, pairplots).
- Built predictive models for spending score using **Linear Regression** and **Decision Tree Regressor**; evaluated with **MAE, RMSE, R², MSLE** and visualized results.
- Performed unsupervised segmentation with **K-Means** using age/income/family size features; visualized cluster separation and feature relationships.

Relational SQL Data Model & Analytics (SQL)

- Designed/queried multi-table schema and wrote joins/aggregations for revenue + performance reporting (monthly revenue, drilldowns by category/restaurant/delivery partner).

EXPERIENCE

Automated Electrical Harness Test Technician / Integration Engineer III, Blue Origin

Jun 2020 – Mar 2021

- Owned High Potential (HiPot) testing operations: performed system audits/maintenance of Cirris HiPot program and resolved discrepancies with Engineering and Quality.

- Wrote, managed, and inspected test scripts that program the HiPot tester; implemented quality validation to isolate and prevent manufacturing defects.
- Developed a Django (Python) application to automate a portion of the scripting workflow; improved repeatability and reduced manual effort.
- Designed test adapters and managed uploads/storage in Windchill; served as acting responsible engineer for test-adapter work orders.
- Owned compliance-driven workflows with strict documentation and auditability; partnered with Engineering/Quality to resolve discrepancies and prevent recurrence.
- Performed root cause analysis on test process failures; implemented repeatable validation checks and training—analogous to data quality gates and pipeline verification.

Engineering Technician IV / Quality Assurance Representative (Link 16), General Dynamics (GDIT) AV8B Harrier

Dec 2017 – Aug 2018

- Performed avionics modifications and inspections to military standards; executed continuity/operational checks and validated completed work for acceptance.
- Coordinated with engineering stakeholders to improve technical directives when errors were identified; supported on-time delivery and compliance.
- Full Avionics Communications system uninstallation, modification and re-installation of Link 16 Avionics system.

Avionics Technician / Collateral Duty Inspector (CDI), United States Marine Corps (3rd MAW, MAG-13, VMA-311) — MCAS Yuma, AZ

Aug 2014 – Jun 2017

- Led avionics troubleshooting, installations, repairs, and inspections; ensured compliance with technical publications and quality requirements at the military aerospace standard.
- Trained and mentored maintainers; supported mission readiness in high-accountability operational environments.
- Served as Collateral Duty Inspector for avionics systems including radar, navigation, ECM, FLIR, communications, and power distribution; ensured compliance with technical publications and QA standards.

EDUCATION

M.S., Information Technology Management — In progress (Expected Spring 2026)

B.S., Data Analytics — Golden Gate University (Apr 2024)

Coding Dojo — Software Development Bootcamp (Jul 2019)

Aviation A&AE School (Aviation Electrician, A1/AE1) • CNATT AV-8B Organizational Maintenance Avionics Technician

CERTIFICATIONS

IPC-A-610 • IPC/WHMA-A-620 • IPC/WHMA-A-620 Space • J-STD-001 • J-STD-001 Space