Jesse Hollingsworth

Data Scientist and AI Software Engineer
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PROFESSIONAL SUMMARY

Data Scientist and AI Software Engineer with a proven record of building production systems that turn complex enterprise data into decisions. Since early 2022, I have been at the forefront of applying generative AI, from consumer apps with 70,000+ downloads to production analytics at General Motors, where I own the automated warranty reporting relied on by engineering and quality leaders. My expertise lies in pairing rigorous data science with full-stack engineering to turn ambitious ideas into polished products people actually use.

TECHNICAL SKILLS

AI / ML	Agentic Workflows, Generative AI, LLMs, RAG, Predictive Modeling, NLP, Computer Vision
Languages	Python, SQL, TypeScript, JavaScript, Dart (Flutter), Kotlin, Swift, C++, HTML/CSS
Data & Cloud	Databricks (Spark SQL, Delta Lake, Unity Catalog), PostgreSQL, Power BI, AWS, GCP
Frameworks	Pandas, Polars, Matplotlib, Scikit-Learn, PyTorch, TensorFlow, FastAPI, Next.js, React, Svelte
Tools	Git, GitHub Actions (CI/CD), SonarQube, Docker, python-pptx, OpenAI/Google GenAI APIs

PROFESSIONAL EXPERIENCE

General Motors Feb 2026 – Present
Data Scientist, GEOS Advanced Analytics & AI *Warren, MI*

- Own GM's automated warranty report, delivering personalized decks to **160+ engineers and quality leaders** that flag which parts are trending worse.
- Turned quality rates into dollars with a spend chapter that ranks the costliest warranty issues, so teams fix what's costing GM the most first.
- Scaled it to **250+ subscriptions** by making it fully self-service: engineers pick their vehicles and parts, add teammates, and pull a fresh report anytime.
- Built the front end for GM's next-generation platform for cutting cost and complexity out of vehicle programs, replacing SharePoint lists and Excel macros.
- Tapped by Product Compliance leadership to take over GM's engineering-standards tools, merging two apps and several SharePoint and Power Apps workflows into one platform.
- Built the tech behind GM Kids Day for **2,700+ families**, from the event lottery to a live ML paper-airplane lab where kids tried to beat an AI's distance predictions.
- Hosted the GEOS All-People Meeting and gave a presentation that engaged the full organization.
- Earned 12 peer recognitions since May, often for helping colleagues with Cursor, Databricks, and AI tools.

General Motors Feb 2025 – Feb 2026
TRACK Data Scientist *Warren, MI*

- Built Python/Databricks analytics apps and dashboards giving engineering teams visibility into component lead times, replacing manual status tracking.
- Contributed to the internal engineering platform, mapping design-owner accountability across vehicle programs and tracking timing-plan milestones.
- Packaged natural-language search over complex SQL into a reusable Python library adopted by multiple internal apps.

General Motors Jan 2024 – Feb 2025
TRACK CCC Vehicle Systems Engineer *Warren, MI*

- Built Python predictive models forecasting component demand to streamline system-wide planning workflows.
- Managed data integration of shared corporate components into vehicle-program bills of materials (BOMs).
- Led the Power Sounder (vehicle alarm) module project, using analytics to track milestones and keep cross-functional teams aligned.

General Motors May 2023 – Aug 2023
Software Engineering Intern *Milford, MI*

- Developed Python testing software validating hardware integration for next-generation vehicle platforms.
- Designed Python workflow programs that **saved hundreds of hours** on tedious tasks.

Yokohama Tire May 2022 – Aug 2022
Electrical Engineering & IT Intern *West Point, MS*
- Reduced tire ID reprint time by **90%** using Python automation, **saving 5 hours of daily production time**.
- Developed IT workflows **saving $4,000 weekly** and optimized the performance of autonomous AGV robots.

AERPAW Aug 2021 – May 2022
5G, AI, and Wireless Communications Researcher *Starkville, MS*
- Modeled and validated wireless protocols for autonomous drone fleets on a 5G testbed, building the software-defined radio network behind real-time AI field experiments.

Innovative Engineering Services May 2020 – Aug 2021
Electrical Engineering Intern *Bartlett, TN*
- Developed a novel 3D reconstruction pipeline processing raw iPad LiDAR sensor data to automate manual site analysis, **saving the company $70,000**.

PERSONAL AI & ENGINEERING PROJECTS

Itinerary Explorer 2025 – 2026
Generative AI Travel Companion (Unpublished)
- Uses live location and Google Maps/Yelp data to recommend nearby stops that fit your itinerary mid-trip.

Worksheet Boss 2023
Curriculum Generation Pipeline
- Built a generative AI pipeline (OpenAI API) using prompt engineering and few-shot learning to turn unstructured requests into structured, curriculum-aligned worksheets.

BARK-9 (Robotic Canine) 2023
Autonomous Robotic Platform
- Engineered an autonomous robotic platform (Unitree) deploying a custom-trained YOLOv8 model for **real-time** object detection and tracking via OpenCV.
- Implemented a Kalman filter for predictive targeting on top of ROS.

Woggle 2023 – 2026
*Mobile Game Development (**3,500+ Downloads**, App Store)*
- Designed a Trie-based combinatorial search algorithm for fast word validation across the full game dictionary.
- Optimized daily puzzle generation with memoization to rapidly compute valid board configurations.

Pocket Cowbell 2022 – 2026
*Mobile Application (**70,000+ Downloads**, App Store)*
- Developed and scaled a mobile app to **70,000+ downloads** with a **4.3-star App Store rating**.

Simple Scoring for Scrabble 2026
*iOS Utility App (**3,500+ Downloads**, App Store)*
- Published an iOS scorekeeper with a turn timer, word validity and point lookup, and saved match history.

EDUCATION

Mississippi State University Dec 2023
Bachelor of Science in Software Engineering, Concentration in Artificial Intelligence *Starkville, MS*

LEADERSHIP & ACTIVITIES

Workplace Technology Ambassador General Motors (1 of 6 in Advanced Analytics & AI), 2026
University Ambassador Mississippi State University, 2020 – 2023
Competitor Red Bull Paper Wings **National Finalist**, 2022
Community Service Lead volunteer for local soup kitchens and the FedEx St. Jude Classic.

CERTIFICATIONS

- Design for Six Sigma (DFSS) Black Belt, General Motors, 2026
- Six Sigma Certified Problem Solver