Anna Marie Love

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Education

The University of Alabama, Tuscaloosa Expected December 2027
B.S. Computer Science and Mathematics GPA: 3.77
Relevant Coursework: Data Structures, Discrete Mathematics, Linear Algebra, Theory of Probability, Digital Logic, Microcomputers

Skills

Programming Languages	Python, C/C++, Java, SQL, HTML, CSS
Frameworks & Libraries	pandas, NumPy, scikit-learn, PyTorch, Flask, SQLAlchemy, Selenium
Tools & Platforms	Git/GitHub, Docker, Linux (Ubuntu), MongoDB, PostgreSQL, Microsoft SQL Server, Databricks, Power BI
Development Practices	JSON, APIs, UML, Agile Methodology
Office Tools	Microsoft Office Suite (Word, Excel, PowerPoint, Outlook, OneNote, OneDrive, Teams)

Work Experience

Software Engineering Intern May 2026 – Present
Wabtec Corporation *Pittsburgh, PA*

Research Mentor Sep 2025 – Present
Google Summer of Code — ML4SCI / University of Alabama *Tuscaloosa, AL*

- Investigated coronary artery calcium (CAC) segmentation and radiomics feature extraction approaches to help scope and shape research directions for the PrediCT project, an ML-driven cardiac CT analysis initiative at the University of Alabama.
- Mentoring a Google Summer of Code contributor on Radiomics Feature Extraction and Calcium Phenotype Discovery, guiding development of a feature extraction and unsupervised clustering pipeline to identify CAC morphology phenotypes from cardiac CT scans.

Software Engineering Co-Op Aug 2024 – Aug 2025
Mercedes-Benz U.S. International, Inc. *Vance, AL*

- Developed NLP solutions to process and categorize large-scale customer and sensor datasets, streamlining manual review to a fraction of previous times.
- Automated ETL pipelines consolidating multi-source data into PostgreSQL, reducing manual data preparation for reporting.
- Created interactive Power BI dashboards integrating suspect supplier material data, providing management with daily operational insights.
- Collaborated cross-functionally with engineering and quality teams to deploy tools and dashboards that supported data-driven decision-making.

Project Experience

Manufacturing Parts Issue Tracking Dashboard May 2025 – Aug 2025

- Created interactive Power BI dashboards to track status of suspect supplier material, integrating data from internal web platforms to a PostgreSQL Server.
- Visualized key metrics, including counts of open topics by status, responsible approvers and approval timelines, traceability of every employee involved in resolving topics and their activity timestamps, and open topics segmented by manufacturing building. These dashboards supported daily operational decisions by managers and senior managers.
- Implemented automated data refresh schedules to keep dashboards updated daily, reducing reporting latency from 24 hours to under 30 minutes.

Customer Feedback NLP Application Aug 2024 – May 2025

- Designed and deployed a custom NLP application leveraging GPT-4 API and embeddings to analyze and categorize over 500,000 customer feedback records and sensor logs.
- Engineered configurable clustering workflows (TD-IDF, PCA, K-means) and prompt engineering modules to customize summarization outputs.
- Configured role-based access and adjustable query parameters to allow different user groups (engineers, managers) to extract tailored insights.