

ABILASHA RAJMOHAN

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Authorized to work in the U.S. (H4 EAD), no sponsorship required

SUMMARY

Entry-level Machine Learning Engineer with an M.S. in Computer Science (AI) from Georgia Tech. Experience building PySpark data pipelines on AWS, evaluating time-series forecasting models, and developing NLP applications, including a RAG-based document search system for Pfizer. Proficient in Python, SQL, and Scikit-learn.

EDUCATION & CERTIFICATION

Georgia Institute of Technology, Master of Science, Computer Science (AI)

GPA: 3.7

Certification: Microsoft Azure AI Essentials: ML and AI Workloads on Azure

Feb 2026

TECHNICAL SKILLS

ML & AI: Scikit-learn, PyTorch, NLP, Transformers, RAG, LlamaIndex, Open-Source LLMs, Prompt Engineering, OCR (Tesseract, PaddleOCR)

Data & Pipelines: Python, PySpark / Apache Spark, SQL, ETL, Data Modeling, AWS (S3, Glue), PostgreSQL, MySQL, Snowflake

Evaluation & Analysis: Model evaluation (accuracy, MAE, SMAPE), ANOVA, time-series forecasting

Engineering & MLOps: Docker, Git/GitHub, REST APIs, Flask, software architecture and schema design (ERD), Agile/Scrum

INDUSTRY EXTERNSHIPS & EXPERIENCE

Pfizer, AI Engineering Extern (*virtual externship via Extern*)

May 2026 – Present

- Building a pipeline that extracts text from pharmaceutical vendor PDFs using OCR (Tesseract, PaddleOCR) and Python libraries (PyMuPDF, pdfplumber) and converts it into structured JSON.
- Developing a retrieval-augmented generation (RAG) search component with LlamaIndex and open-source LLMs for question answering across pharmaceutical document sets.
- Designing a Gradio chatbot interface that connects the OCR and RAG stages as the final deliverable.

Wayfair, AI Automation Extern (*virtual externship via Extern*)

Feb 2026 – Apr 2026

- Built AI workflow agents in n8n to automate customer-support tasks, using prompt engineering, NLP, and REST API and webhook integrations.
- Refined system prompts and conversation flows through iterative testing; monitored workflow performance and resolved edge-case failures.

Aham Holistic Healing, Freelance Web Developer

Sep 2024 – Dec 2025

- Built customer-facing web pages and a Node.js/PostgreSQL REST API, including PayPal payment integration. Improved API response times by 40% and reduced bounce rate by 28% through UX changes.

PROJECTS

Iowa Alcohol Sales Forecasting / PySpark, AWS S3, Time-Series Models, Tableau

- Built a PySpark pipeline on AWS S3 to ingest, clean, and transform Iowa liquor sales data (2012–2022, millions of records).
- Developed time-series forecasting models evaluated with MAE, SMAPE, and ANOVA, and created a Tableau dashboard comparing predicted and actual sales by time, geography, and product category.

CALM: Emotion-Aware Mental Health Chatbot / RASA, Transformers, NLTK, VAD Modeling, NLP

- Built the emotion pipeline on RASA: tokenized emotion keywords with NLTK, computed valence-arousal-dominance (VAD) scores, and used emotion detection fine-tuned on EmoBank (10,000+ annotated sentences).
- Selected responses using VAD scores and dialogue history stored in RASA's tracker, allowing replies to adapt to the user's emotional state across turns and sessions.
- Implemented a ten-question mental status screening, custom policies for severe cases, and fallback handling for unexpected inputs.
- Conducted a needfinding survey, deployed the bot on a Wix site, and ran a one-week study with 11 users; 9 (81%) reported that it helped them achieve their goals.

Infant Respiratory Rate Monitoring App / Signal Processing, ML, Mobile

- Developed a mobile app that estimates infant respiratory rate from accelerometer data using custom signal processing, reaching 92% accuracy; noise filtering reduced false positives by 40% versus the baseline.

Wells Fargo Investment Management System / SQL, ERD, Spring, JPA

- Designed the ERD and optimized SQL schemas for a financial advisor platform; implemented the Spring/JPA backend for high-volume portfolio and transaction processing.

Symptom & Medication Side Effect Tracker / FHIR APIs, SQL

- Built a healthcare data integration platform using FHIR APIs and SQL for standardized data exchange across health systems.