

# Sharanya Krishnamurthi

AI Engineer

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## EDUCATION

### Georgia Institute of Technology

*Masters in Computer Science, Artificial Intelligence Specialization*

Atlanta, GA

*Jan 2024 - May 2026*

### B. S. Abdur Rahman Crescent Institute of Technology

*Bachelor of Technology in Electronics and Communication Engineering*

Chennai, India

*July 2015 - May 2019*

## EXPERIENCE

### AI Chatbot Developer (Volunteer) — Health4TheWorld Inc

Palo Alto, CA, USA

*Aug 2025 - Present*

- Developing an AI-powered medical chatbot using Open WebUI, integrated with an Ollama backend and enhanced with retrieval from domain-specific medical documents for healthcare applications.

### Member of Technical Staff - AI/ML

Zoho Corporation Pvt. Ltd., Chennai, India

*Oct 2019 - Nov 2023*

- Designed and developed **LLM-powered OCR pipelines** for insurance EOB documents, achieving **95%+ field-level accuracy** with reducing manual claims processing time by 70%.
- Built robust data preprocessing workflows, to address data drift and improve model accuracy by cleaning and de-identifying large-scale insurance datasets for downstream **NLP and ML** tasks.
- Trained LayoutLM model on the curated data using pytorch to achieve an average precision around 97% and a 94% average recall for all fields after 20 epochs on a NVIDIA A100 48GB GPU
- Deployed an **ensemble model** (rule-based + templates + LLMs) on Zoho's Stratus cloud and exposed it as a REST API, enabling seamless integration across products.
- Introduced a **few-shot learning approach** for line-item extraction using **LayoutLM and Donut**, achieving 60% automation while maintaining a 95%+ F1 score.
- Trained text detection and recognition models for diverse document types, enhancing OCR generalization.
- Acted as **primary POC** for document NLP initiatives, collaborating with product and engineering teams to deliver production-ready solutions.

## PROJECTS

### AI-Powered Document QA System — RAG, Gemini 2.0, ChromaDB, Gradio, Hugging Face Spaces

- Developed and deployed an end-to-end RAG system with Gemini 2.0, text-embedding-004, and ChromaDB, hosted on Hugging Face Spaces. Achieved 20% improvement in answer accuracy using prompt engineering.

### Warehouse Search Optimization — Python, Robotics, Path Planning & Search, A\*

- Developed a warehouse automation solution to efficiently pick up and deliver boxes under different constraints.

### Stock Portfolio Management using Machine Learning — Python, Decision Trees, BagLearner, Time-Series Analysis

- Developed an ML-driven system to optimize stock portfolio performance using historical price data.

### Agent for Solving Raven's Progressive Matrices — Python, Machine Learning, Computer Vision

- Developed an intelligent agent capable of solving abstract reasoning problems similar to Raven's Progressive Matrices.
- Achieved 84/96 correct solutions (87.5%) , including 48 hidden problems, demonstrating strong pattern recognition.

## TECHNICAL SKILLS

**Languages:** Python, Java, C/C++, SQL

**Machine Learning & Deep Learning:** PyTorch, Tensorflow, Keras, Scikit-learn, Hugging Face Transformers, Natural Language Processing (NLP), Computer Vision, Generative AI, Feature Engineering, Model Optimization

**LLMs & Generative AI:** Prompt Engineering, Fine-tuning, Retrieval-Augmented Generation (RAG), LangChain, Multi-modal Models, Large Language Models (LLMs)

**MLOps & Cloud Platforms:** AWS, GCP/Vertex AI, Docker, Kubernetes, Git, CI/CD Pipelines, Model Deployment, REST API Development, Experiment Tracking

**Robotics Algorithms:** Kalman Filter, Particle Filter, Localization, Mapping, Graph SLAM, Online SLAM

## CERTIFICATIONS

**AWS Certified AI Practitioner (2025)**