

## About

Machine Learning Engineer with 4+ years of experience specializing in NLP, OCR, and Generative AI. Proven track record in building and deploying LLM-powered systems, RAG architectures, and intelligent document processing pipelines. Passionate about creating scalable AI products with real-world impact. Currently pursuing M.S. at Georgia Tech, seeking AI/ML internships and research opportunities for Summer 2025.

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## Experience

**ZLabs, Zoho Corporation – India | Oct 2019 – Nov 2023**

**Member Technical Staff – R&D**

- Developed LLM-based OCR pipelines for documents (EOBs, ID cards) using fine-tuned Microsoft LayoutLM, achieving 95%+ accuracy.
  - Designed and optimized OCR text alignment and extraction logic, improving downstream NLP model performance.
  - Built and deployed custom NLP models (Rasa, Spacy) for named entity extraction in structured/unstructured documents.
  - Introduced few-shot learning for line-item extraction, cutting training time while maintaining high F1 scores.
  - Curated instruction datasets and fine-tuned proprietary LLMs to enhance document understanding across domains.
  - Acted as AI deployment lead, collaborating cross-functionally with product, infra, and QA teams.
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## Projects

- **AI-Powered Document QA System (RAG, Gemini 2.0, ChromaDB, Gradio, Hugging Face Spaces)**
    - Developed and deployed an end-to-end Retrieval-Augmented Generation (RAG) system using Gemini 2.0, text-embedding-004, and ChromaDB, with a Gradio frontend hosted on Hugging Face Spaces - [Demo](#)
  - **DocSummarizer (Hugging Face Transformers, NLP)**
    - Built a document summarization tool using DistilBART-CNN-12-6, deployed on Hugging Face Spaces - [Demo](#)
  - **Recipe Recommender System (ML, Scikit-learn)**
    - Created a multi-criteria recommendation system using Indian Food 101 dataset and NLP-based filtering.
  - **Raven's Matrices AI Agent (AI, OpenCV)**
    - Engineered an AI agent that solved 84/96 Raven's abstract reasoning tasks using pattern recognition.
  - **Pathfinding Robot (Search Algorithms, Python)**
    - Implemented BFS, DFS, A\*, and Bi-Directional A\* algorithms for grid-based robot navigation.
  - **Impact of Generative AI on Cognition (Research – Ongoing)**
    - Exploring how interaction with GenAI influences cognitive performance and critical thinking.
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## Skills

- Languages: **Python, Java, C**
  - ML & NLP: **PyTorch, Hugging Face Transformers, Scikit-learn, Rasa, Spacy**
  - LLMs & GenAI: **Fine-tuning, RAG, LangChain, Multi-modal models**
  - ML Ops: **Docker, REST APIs, CI/CD, Model Optimization**
  - Tools: **ChromaDB, Gradio, OpenCV, Pandas, NumPy, Seaborn**
  - Others: **Intelligent Document Processing (IDP), Android App Dev**
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## Education

**M.S. in Computer Science (Interactive Intelligence) – Georgia Tech (4.0/4.0) - Ongoing**

*Jan 2024 – May 2026 | Valid U.S. Work Permit till July 2028*

**B.Tech in Electronics & Communication – Crescent Institute, India (9.89/10)**

*July 2015 – May 2019 | University Gold Medalist*