

Ramya Sri Achanta

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Summary

Backend & AI Engineer with 2+ years of experience building scalable microservices and multimodal LLM-integrated systems. Strong in Python, Go, distributed systems, and cloud (AWS/Azure). Specialized in LLM orchestration, vision-language UI agents, prompt engineering, RAG pipelines, and real-time inference. Passionate about building resilient, intelligent AI platforms.

Skills

- **Programming Languages:** Go, Python, Java, JavaScript, UNIX, C++, Kotlin, C# .NET Core
- **Tools and Platform:** Visual Studio, PyCharm, Anaconda, Figma, GraphQL, Unit Testing (PyTest, JUnit, Jest), Web Servers (Apache, Nginx)
- **Web Development:** React.js, Angular, Tailwind CSS, Django, Spring Boot, Flask, Node.js, Next.js, HTML, CSS
- **Databases:** MySQL, PostgreSQL, MongoDB, SQLite (with connection pooling)
- **Cloud Technologies:** AWS (EC2, S3, Lambda, RDS), Google Cloud Platform (GCP), Microsoft Azure, Docker, CI/CD (GitHub Actions, Jenkins)
- **Network and Security:** REST APIs, WebSocket, TCP/IP, DNS, Load Balancing, IAM, VPNs
- **AI/ML & Data Science:** PyTorch, TensorFlow, LLMs, Prompt Engineering, RAG, Vision-Language Models, OmniParser, OCR, Embeddings

Professional Experience

Object Tech, Inc

May 2025 - Present

ML Software Developer (Internship)

Fremont, CA

- Built a multimodal LLM → **OmniParser** → **action execution** pipeline enabling autonomous UI interaction via schema-constrained instructions
- Designed **prompt orchestration** workflows to generate deterministic action plans with tool-calling-like behavior (click, type, hover, app-switch).
- Implemented validation layers, fallback prompts, and guardrail logic to reduce hallucinations and improve parsing reliability by **40%**.
- Developed scalable APIs (**OpenAPI/GraphQL**) for agent interaction across distributed microservices.
- Optimized real-time Q&A with **streaming LLM responses** and **FAISS-based retrieval** achieving **less than 200ms latency**.

Titan Commercial

July 2025 - Present

Data Analyst (Internship)

Houston, TX

- Built automated AWS pipelines (Lambda, ECS, S3) to integrate Make, AutoCAD, and InDesign workflows that helping reduce manual design time from **8 hours** → **60 seconds**.
- Developed Power BI dashboards to deliver real-time business and financial insights to leadership.

Radar Ventures Private Limited

Sep 2022 - Dec 2023

Software Development Engineer - I

Chennai, India

- Applied design patterns to develop and optimize **Golang microservices** (REST & gRPC) for logistics workflows, leveraging OOP principles to achieve **99.9%** uptime while processing **50K+ daily transactions**.
- Led migration of 3+ product lines to Next.js, reducing dashboard load times by **20%** for 5K+ daily users and improving logistics planning efficiency.
- Collaborated in Agile/Scrum teams, provided on-call support and debugging for production, ensure scalability and reliability in traffic environments.

PricewaterhouseCoopers India (PwC)

Jan 2022 - Jul 2022

Risk Advisory (Internship)

Hyderabad, India

- Built Python automation tools for DevSecOps workflows, reducing manual validation time by **60%** for any kind of workflow.

Microsoft India (R&D) Pvt Ltd

Jun 2021 - Aug 2021

Software Engineer (Internship)

Hyderabad, India

- Expanding the '**Show Changes**' feature in **Excel Online** using React.js, enhancing collaborative editing visibility for over **2M+ users**.
- Collaborated with product managers and QA teams to test and validate user flows for seamless integration into Microsoft Office 365.

Education

University of Houston-Clear Lake

Jan 2024 - Dec 2025 (Expected)

Master's Degree, Computer Science (GPA:3.82/4.0)

Amrita Viswa Vidyapeetham

Jul 2018 - May 2022

Bachelor's Degree, Computer Science and Engineering (GPA: 3.05/4.0)

Projects

AI Form Filling Assistant (Vision-Language + UI Automation)

- Developed an AI assistant that interprets form screenshots using **GPT-4o Vision** to detect fields, labels, input types, dropdowns, and required actions with high accuracy.
- Built a structured **JSON-based action generation pipeline** (type, click, select, scroll) executed via **Playwright** to autonomously complete multi-step online forms
- Implemented **OCR text extraction**, confidence scoring, fallback prompts, and user confirmation loops to ensure reliability, prevent hallucinations, and support safe auto-submission.

Link: <https://github.com/ramyaachanta/ai-form-filling-assistant>

GHC Career, Networking & Confidence Coach GPT (Custom LLM System)

Oct 2025

- Designed a domain-specialized **LLM agent** for Grace Hopper attendees with a multi-layer **system prompt architecture**, personalized coaching logic, structured workflow generation, and safety/validation rules.
- Extracted and transformed the official **GHC 2025 schedule** into a searchable CSV dataset by building a robust **Selenium-based scraper** that captured session metadata (titles, descriptions, dates, times, locations, tracks, speakers), handled dynamic UI and pagination, and produced a high-quality dataset powering the GPT agent's session recommendations, filtering, and goal-aligned planning.
- Implemented conversational tools for crafting recruiter intros, elevator pitches, LinkedIn messages, networking scripts, confidence coaching, optimized for clarity, actionability, and first-time conference attendees.

Link: <https://chatgpt.com/g/g-690b6928ac7481919c4a31d0a5f2b381-ghc-2025>