Ramya Sri Achanta

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Summary

Senior Software Engineer with 2+ years of experience building scalable backend systems, microservices, and AI-powered platforms. Strong in Python, Go, distributed systems, and cloud infrastructure (AWS, Azure). Proven experience designing transactional systems and integrating LLMs, RAG pipelines, and vision-language models into production workflows. Passionate about building reliable, intelligent systems at scale.

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
- **Systems & Architecture**: Distributed Systems, Microservices Architecture, Transactional Systems, Data Modeling, Scalability, High Availability

Professional Experience

Rebound Dynamics   **Jan 2026 – Present**
Senior Software Developer   *Houston, TX*
- Architected and delivered a scalable **inventory management system** real-time stock visibility, SKU lifecycle tracking, and warehouse operations.
- Designed backend microservices, transactional data flows, **REST APIs** to support inventory reconciliation, replenishment workflows, & auditability.
- **Owned end-to-end SDLC** including system design, sprint planning, technical decision-making, code reviews, deployments, and production support.
- Led technical mentorship & enforced coding standards, automated testing, documentation to ensure performance, reliability & long-term scalability.
- Supported high-throughput operations by designing low-latency services with strong availability, fault tolerance & production reliability guarantees.

Object Tech, Inc   **May 2025 – Dec 2025**
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**.

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**
DevSecOps (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)   **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**
Master's Degree, Computer Science **(GPA:3.84/4.0)**

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)   **Nov 2025**
- 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**
- Built a **domain-specialized LLM agent** with layered system prompts, structured workflows, and safety/validation logic for personalized career and networking guidance.
- Created a **searchable GHC 2025 dataset** by scraping and transforming conference schedules using Selenium, enabling session recommendations and goal-based planning. Developed conversational tools for **recruiter outreach, elevator pitches, and networking scripts**, optimized for clarity and first-time conference attendees.
  Link: **https://chatgpt.com/g/g-690b6928ac7481919c4a31d0a5f2b381-ghc-2025**