Chetanya Anil Rathi

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Summary

Innovative Software Developer specializing in Generative AI, LLM applications, and intelligent agent systems. Experience in building RAG pipelines, Lang Chain/LangGraph architectures, and AI-integrated full-stack solutions using Python, React.js, and cloud platforms. Skilled in vector databases, embeddings to design scalable, context-aware AI products that enhance automation and user experience.

Education

Syracuse University, Syracuse, New York, United StatesGPA: 3.5/4Master of Science in Computer ScienceMay 2026Coursework: Machine Learning, Operating Systems, Algorithms, NLP, DBMS, Architecture

Savitribai Phule Pune University, Pune, India

GPA: 3.7/4

Bachelor of Technology in Artificial Intelligence and Data Science

May 2024

Coursework: Cloud Computing, Web Technology, Computer Networks, Deep Learning

Technical Skills

Programming: MERN Stack JavaScript (ES6+), Typescript, C++, HTML5, CSS3, Java, Python, PHP, Git,

Gen AI Tools: Lang Chain, RAG, Lang Graph, Gemini, Vertex AI, Memori, JWT, BERT

Backend & DB: Nodejs, Flask, REST APIs, SQL, MongoDB, PostgreSQL, RAG, Chroma DB, Fast API

DevOps & Cloud: AWS Lambda, AWS RDS, AWS S3, CI/CD Pipeline, n8n,

Professional Experience

Software Developer Intern

Jan 2024 - May 2024

Main 10 – Maintenance Management Tool

Pune, India

- Engineered an AI-powered maintenance management platform using Lang Chain, Fast API, reducing data retrieval time by 25%.
- Integrated AWS S3 for scalable cloud storage, enhancing system resilience and reducing backup recovery time by 40%
- Automated workflows using AWS Lambda and implemented AWS RDS (PostgreSQL), enhancing real-time alerting and increasing query accuracy by 35%.

Software Engineering Intern

June 2023 - Dec 2023

Hum Aspen Wellness Private Limited

Pune, India

- Enhanced the Now Zone Life wellness app by integrating LLM-driven personalized insights using Lang Chain and Gemini API, increasing user engagement by 35%.
- Optimized NoSQL (MongoDB) databases, improving data accuracy by 50% and reducing query execution times by 30%
- Automated and executed 150+ test cases, identified 30+ critical bugs, and raised overall software quality by 30%

Projects

EECS Hackathon, Syracuse University / Flask, Python, Artificial Intelligence, Machine Learning (Link)

Mar 2025

- Award-winning (1st Prize) automated grading system that cuts manual grading time by 60%
- Built a Flask web app to process 500+ assignment submissions and NLP-based expertise matching scheduling

Context-Driven Agentic RAG System | LangGraph, Lang Chain, Gemini, OpenAI (Link)

Oct 2025

- Architected an intelligent, multi agent RAG system using python, Lang Chain and Lang Graph, featuring a Gemini-powered router that automatically delegates tasks to specialized agents for complex reasoning, simple retrieval.
- Implemented advanced "Pre-Act" RAG for dynamic multi-step planning and "Corrective" RAG with document grading and real-time web search fallback, all powered by a Chroma DB vector store.

Virtual AI Trainer | Fast API, React, Gemini, Chart.js, OAuth2.0, JWT (Link)

Sep 2025

- Integrated Google Gemini (Vertex AI) to generate personalized insights and fitness recommendations, analyzing logged health data for actionable progress tracking.
- Designed and integrated interactive dashboards using Chart.js and optimized SQLite + SQL Alchemy storage, improving data visualization and user engagement by 45%.

Lenox AI - Chatbot / React, Flask, RAG, Gemini (Link)

Aug 2025

- Built an intelligent chatbot that answers personalized questions about my resume and experience
- Integrated Lang Chain, Google Vertex AI, Chroma DB to enable sematic retrieval and accurate query matching

Tweet AI-Generated Text Detection | BERT, Python

May 2025

- Deployed a BERT-based classifier to distinguish AI-generated tweets from human-written text with 96.81% accuracy
- Implemented advanced preprocessing, tokenization, and fine-tuning techniques to optimize model performance and reliability

Extracurricular Activities

- Project Lead for the AI Club at the EECS Department, Syracuse University.
- Published Paper Voice Cloning and Forgery Detection using Wave GAN and Spec GAN, IEEE (Link)