Vamsi Mukkamala

Greater London | vmuk99@gmail.com | +44 07741 011588 | LinkedIn | Github

Education

University College London (UCL) — **London, United Kingdom**
MSc. Software Systems Engineering — Sept 2024 – Present

- **Modules:** Software Development Practice, Requirements Engineering, Software Architecture, Automated Software Engineering, Applied Deep Learning, Information Retrieval and Data Mining, Research Methods in Software Engineering.
- **Student Ambassador**, **UCL Computer Science** – facilitated departmental events and promoted student engagement.

Experience

IBM — **London, United Kingdom**
Software Engineer — Jun 2025 – Present

- **Designed and implemented end-to-end architecture** for an **AI-driven legacy code remediation system**, leveraging **LangChain, LangGraph** to build agentic workflows.
- **Integrated vLLM** (for industry standard inference), **LangSmith instrumentation**, and **JaCoCo test coverage analysis**, optimizing agent performance and ensuring measurable quality improvements.
- **Provisioned and optimized project environments** with **vLLM, Ollama**, and reproducible **virtual environments**; engineered a **full-repository processing pipeline** enabling scalable, multi-file agentic workflows.

Accenture, Cigna (client) — **Hyderabad, India**
Associate Software Engineer — Aug 2022 – May 2024

- **Developed an automated claims workflow** to accurately calculate payments owed by **Cigna (health insurance)** across claims received from multiple medical pharmacies.
- **Designed and executed** test strategies, test processes, and **ETL automation frameworks**, improving validation efficiency and **reducing manual effort by 80%**. **Executed and monitored AWS jobs** and **managed S3 storage buckets**
- Applied **Agile** methodology using **JIRA** and **Confluence** for project planning, tracking, and documentation; **increased delivery speed and team collaboration by 30%**, ensuring consistent project success.
- **Streamlined data reporting** by extracting and transforming data from Oracle DB, generating concise Excel reports and delivering key insights through PowerPoint presentations, enabling data-driven decision-making by management.

Blobcity — **Remote (Delaware, USA)**
AI Intern — Jul 2021 – Sept 2021

- Contributed to the **development** of around **20** machine learning and deep learning **model templates** with the Data Science team, **reducing setup time for experiments** by **40%** and accelerating prototyping.
- Leveraged **Google Colab** to optimize **model training**, enabling faster iteration and reproducibility across projects.
- **Published** templates on **GitHub and Blobcity Cloud**, increasing **open-source adoption** and contributing to the company's developer community engagement.

Projects

- **LLM-Powered Anti-Pattern Resolution** – Developed an intelligent tool to automatically detect and refactor legacy code anti-patterns using **LLMs** (Granite, Qwen3, GPT-OSS) and **multi-agent workflows** that can be run with local infrastructure.
- **Zoom Bot** – Built a Python automation bot using **Selenium**, **PyAutoGUI**, **Discord Webhooks**, and **OpenCV** that attends online classes on Zoom by fetching links from the student portal. Adopted by the entire 2022 cohort during COVID-19. GitHub
- **Unmasking Human Faces** – Designed a **deep learning model** for face mask removal and facial inpainting, reconstructing occluded facial regions with realistic outputs. GitHub

Awards & Recognitions

Hackathon Wins - Best use of Langflow at Hacking Agents, London 2025 & Best use of ACI.DEV at AI Native Dev, 2025
Accenture Celebrates Excellence Award (ACE) - Q3, FY23 Individual, The Extra Mile Award
Emerging Star (Accenture) - Q4, FY23 Individual, CIGNA Rewards & Recognition Program
Cignoverse Innovation of the month (Accenture) - Aug, FY23 Individual, CIGNA Rewards & Recognition Program

Skills

Programming Languages: Python, Java, C++, JavaScript, Go, Swift, SQL
Frameworks, Technologies & Tools: LangChain, LangGraph, FastAPI, Django, SwiftUI, PyTorch, Scikit-learn, Pandas, NumPy, Selenium, OpenCV, SpringBoot, AWS, Git, CI/CD, Agile (JIRA, Confluence), vLLM, Ollama, Docker
Databases: Oracle, PostgreSQL, MongoDB, DynamoDB
Core Competencies: Data Structures & Algorithms, Object-Oriented Programming (OOP), Cloud Computing, Test Automation (ETL, JaCoCo), Software Development Life Cycle (SDLC), Application Resiliency & Security