

Gopala Bhamidipati

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EDUCATION

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| University College London <i>MSc Artificial Intelligence and Data Engineering</i> | September 2024 – September 2025 London, UK |
| Queen Mary, University of London <i>BSc Computer Science, First Class Honours</i> | September 2021 – June 2024 London, UK |

• **Relevant Coursework:** Software Development Practice, Requirements Engineering and Software Architecture, Engineering for Data Analysis, Introduction to Machine Learning, Applied Deep Learning

• **Relevant Coursework:** Algorithms and Data Structures, Software Engineering, Object-Oriented Programming, Web Technology, Distributed Systems, Database Systems, Big Data Processing

SKILLS

- **Programming Languages:** Python, Java, Go, C#, SQL, PHP
- **Frameworks & Web Development:** JavaScript, React, Django, HTML, CSS
- **Data Science & ML/AI:** Pandas, NumPy, Matplotlib, Hadoop, Spark
- **DevOps & Cloud Tools:** Git, Docker, Kubernetes, Terraform, Ansible, BeeGFS

EXPERIENCE

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| AI Software Engineer <i>International Federation of Red Cross and Red Crescent Societies</i> | June 2025 – September 2025 London, UK |
| • Engineered and deployed an Azure OpenAI-powered summarisation modules within the IFRC GO platform using Python to extract and summarise key insights from emergency reports across multiple workflows. | |
| • Enhanced platform's capability to process large-scale unstructured data and support real-time operational learning and critical decision-making during humanitarian emergencies. | |
| • Reduced emergency report processing time from hours to minutes by integrating Azure OpenAI LLM flows into legacy systems, accelerating decision-making speed across global operations. | |

• Guided 50+ students in understanding Computer System and Network concepts such as binary representation and assembly language.

• Enhanced student comprehension by simplifying complex computing concepts, ensuring accessibility for learners from diverse backgrounds.

PROJECTS

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| Distributed Data Automation (<i>Python, Terraform, Ansible, Spark, BeeGFS</i>) | January 2025 – April 2025 |
| • Provisioned a scalable distributed data processing pipeline across a 5-node cluster leveraging Terraform for infrastructure provisioning and Ansible for configuration management. | |
| • Applied Spark's ALS algorithm to perform collaborative filtering and machine learning analysis, leveraging BeeGFS for high-throughput parallel file storage. | |
| • Deployed Prometheus and Grafana dashboards for real-time monitoring and system metrics visualisation. | |
| • Secured cluster access using SSH keys and implemented host-based firewall rules. | |
| • Achieved 35-hour continuous data processing with zero system downtime during load tests. | |

• Designed and launched a responsive portfolio web application using React for fast front-end development.

• Integrated JavaScript and SCSS for a dynamic UI, ensuring cross-browser compatibility and optimised performances.

• Configured continuous integration and automated CI/CD deployment using Netlify.

• Developed an interactive web application for analysing Reddit content, implementing VADER for sentiment analysis and Pegasus-X for text summarisation, enabling toxicity detection across multiple subreddits.

• Automated data mining through RESTful APIs, retrieving and processing 100+ Reddit posts per day.

• Refactored a scalable Django backend, reducing API response latency by 30%.

• Secured user data with SQL-based authentication and data storage workflows, ensuring robust access control.