Gopala Bhamidipati

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EDUCATION

University College London   Sep 2024 – Sep 2025
MSc Artificial Intelligence and Data Engineering, Merit   London, UK
- **Relevant Coursework:** Software Development Practice, Requirements Engineering and Software Architecture, Engineering for Data Analysis, Introduction to Machine Learning, Applied Deep Learning

Queen Mary, University of London   Sep 2021 – Jun 2024
BSc Computer Science, First Class Honours   London, UK
- **Relevant Coursework:** Algorithms and Data Structures, Software Engineering, Object-Oriented Programming, Web Technology, Distributed Systems, Database Systems, Big Data Processing

SKILLS

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

EXPERIENCE

AI Software Engineer   Jun 2025 – Sep 2025
International Federation of Red Cross and Red Crescent Societies   London, UK
- Engineered and deployed summarisation modules within the IFRC GO platform using Python, the Azure OpenAI SDK and prompt engineering techniques to extract and summarise insights from emergency reports.
- 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.

Teaching Assistant   Sep 2022 – Dec 2022
Queen Mary, University of London   London, UK
- 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

Distributed Data Automation (*Python, Terraform, Ansible, Spark, BeeGFS***)**   Jan 2025 – Apr 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 Alternating Least Squares (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 test.

Reddit Sentiment Summariser *(Python, Django, HTML, CSS, JavaScript, SQL)*   Sep 2023 – Jun 2024
- 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.

Portfolio Website *(React, JavaScript, SCSS)*   Sep 2022 – Sep 2022
- Designed and launched a responsive, high-performance portfolio web application using React for fast front-end development.
- Integrated JavaScript and SCSS for a dynamic UI, ensuring cross-browser compatibility and optimised performance.
- Configured continuous integration and continuous deployment (CI/CD) using Netlify for automated updates.