

GOPALA BHAMIDIPATI

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OVERVIEW

Software engineer with a strong foundation in computer science, distributed systems and machine learning. Passionate about building scalable, high-impact applications that solve real-world problems. Experienced in full-stack development, cloud infrastructure, and modern ML tooling through technical projects and internships. Eager to contribute to fast-moving engineering teams driving global-scale solutions.

EDUCATION

UNIVERSITY COLLEGE LONDON

Software, Artificial Intelligence and Data Engineering MSC

London, UK

2024 - 2025

- Includes Introduction to Machine Learning, Requirements Engineering and Software Architecture, Validation and Verification, Software Development Practice, Professional Practice, Applied Deep Learning, Engineering for Data Analysis

QUEEN MARY UNIVERSITY OF LONDON

Computer Science BSC - First Class Honors

London, UK

2021 - 2024

- Includes Object-Oriented Programming; Web Technology; Software Engineering; Algorithms and Data Structures; Big Data Processing; Neural Networks and Deep Learning, Distributed Systems, Database Systems, Information System Analysis

EXPERIENCE

INTERNATIONAL FEDERATION OF RED CROSS AND RED CRESCENT SOCIETIES

Software Engineer Intern

London, UK

June 2025 - September 2025

- Integrate an AI-powered system into an existing infrastructure to extract and summarise key insights from emergency response reports across multiple workflows.
- Contribute to an open-source project aimed at developing AI-driven solutions that support real-time operational learning and critical decision-making during emergencies.
- Modernise legacy systems with AI technologies adopted by first responders worldwide, enhancing global emergency response effectiveness.

QUEEN MARY UNIVERSITY OF LONDON

Teaching Assistant

London, UK

September 2022 - December 2022

- Guided 50+ students in understanding Computer System and Network concepts such as binary representation, pattern recognition, CPU architecture, server architecture and assembly language.
- Enhanced communication skills by simplifying complex concepts, ensuring students with diverse learning backgrounds could grasp challenging material.

BARCLAYS BANK

Shadowing Intern

London, UK

July 2019 - July 2019

- Collaborated with development teams working on low latency trading applications.
- Gained insights into transformation of business requirements into actionable software development goals.
- Experienced process of software delivery, from development to final handover to stakeholders.

PROJECTS

ANIMATED THEMED WEB APPLICATION – VALENTINES EDITION

(JavaScript, SCSS)

London, UK

October 2024 - October 2024

- Engineered a versatile, animated web application using JavaScript for dynamic front-end logic and SCSS for theme-based styling, smoothly transitioning from a heartfelt landing page with a personalized message (“Dear [Name]”) into a dynamic nighttime flower-themed interface.
- Implemented smooth animations and transitions to enhance visual appeal and user engagement, achieving sub-second load times (e.g., 0.8s) for a highly interactive user experience.
- Built custom components with modern JavaScript and clean SCSS, ensuring 100% cross-browser compatibility and strong performance across devices.

- Deployed the application using Fly.io, leveraging edge hosting and CI/CD capabilities for fast, reliable global delivery.

PORTFOLIO WEBSITE

London, UK

(React, JavaScript, Vanilla CSS)

September 2024 - September 2024

- Designed and launched an interactive, responsive web application using React for fast front-end development, focusing on providing a simple, user-friendly experience showcasing personal projects and skills amongst other sections.
- Integrated JavaScript and Vanilla CSS for dynamic features with a clean modern user-interface, ensuring cross-browser compatibility, enhanced user interaction and optimized performances.
- Configured continuous integration and automated deployment using Netlify, leveraging its CI/CD capabilities to seamlessly deliver updates to users.
- Achieved a Lighthouse performance score of 82 in performance and accessibility by optimizing asset delivery, lazy loading images, and eliminating render-blocking scripts.

REDDIT SENTIMENT SUMMARIZER

London, UK

(Python, Django, HTML, CSS, JavaScript, SQL)

September 2023 - June 2024

- Developed a full-stack web application to analyze and summarize Reddit content using VADER for sentiment analysis and Pegasus-X for text summarization, enabling real-time toxicity detection across subreddits.
- Automated data mining through RESTful APIs, retrieving and processing over 100+ Reddit posts per day.
- Refactored a scalable Django backend, reducing API response latency by ~30% and supporting concurrent user requests with optimized database interactions.
- Secured user data with SQL-based authentication and data storage workflows, ensuring GDPR compliance and robust access control.
- Evaluated toxicity detection performance on a 1–5 scale with >92% accuracy in toxic content detection; improved content safety while preserving post context and readability.

WEATHER APP GROUP PROJECT

London, UK

(React, CSS, Google Firebase)

January 2023 - June 2023

- Led a 5-person Agile team, delivering a real-time weather forecast web application retrieving real time data from a public weather API.
- Utilized Google Firebase for operations management and database application, efficiently handling user data storage and enhancing the backend to support real-time updates.
- Optimized UI based on insights from user feedback, gathered through conducted user surveys and applied data analytics.
- Strategically assigned tasks based on individual team member strengths, ensuring project delivery met high-quality standards and all deadlines.

CUSTOM WORKOUT PLANNER DESKTOP APPLICATION

London, UK

(C#, SQL, Windows Forms)

September 2020 - June 2021

- Built an application providing custom workout routines backed by health metric analysis and deploying SQL for database management.
- Conducted user surveys to gather feedback on usability and features, informing improvements and personalized workout planning.

SKILLS

- *Programming Languages:* Python, Java, Go, C#, HTML, CSS, JavaScript, SQL, PHP
- *Frameworks:* React, Django
- *ML Tools:* PyTorch, TensorFlow, Pegasus-X, VADER Sentiment
- *Data Processing:* Pandas, NumPy, Matplotlib, Apache Spark, Hadoop
- *DevOps & Infrastructure:* Git, Docker, Terraform, Ansible, Netlify, Fly.io, REST APIs, CI/CD
- *Monitoring & File Systems:* Prometheus, Grafana, NFS, BeeGFS