

SUMANTH DEVARAPALLI

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SUMMARY

Experienced Software Developer with a Master's in Data Science and Analytics from the University of Leeds. Proficient in programming languages such as C#, python and JavaScript, and experienced in database management with SQL and FireStore. Demonstrated expertise in full-stack development, agile methodologies, and problem-solving within various industries, including healthcare and technology. Proven ability to design and implement scalable systems, manage data pipelines, and provide operational solutions while adhering to GDPR and regulatory standards.

EDUCATION

University of Leeds, UK

September 2022 – September 2023

MSc in Data Science & Analytics

Achieved: Merit

B V Raju Institute of Technology, INDIA

June 2017 – March 2021

Bachelor's in Electronics and communications

Achieved: Distinction with a research scholar honor

PROFESSIONAL EXPERIENCE

Westward Care Ltd, United Kingdom

Sept 2024 – Present

Application Developer - CareConnect

- Identified **critical operational challenges** within the care home environment while working as a part-time chef during my master's studies. This led to the development of **CareConnect**, a customized and centralized communication system for care homes, leveraging my expertise in complete software lifecycle development.
- Utilizing Node.js and Express.js for backend services, and crafted interactive user interfaces using HTML5, CSS, and JavaScript. Integrated key **middleware** like CORS for handling cross-origin requests and dotenv for secure management of environment variables, enhancing application security and scalability.
- Established a **MySQL** database with advanced connection pooling techniques for data management, ensuring secure and compliant data handling of over 500+ data values.
- Designed and implemented **RESTful API** endpoints to facilitate efficient data exchanges between frontend and backend systems, streamlining operations across the care home.
- Conducted **hands-on training for non-technical staff**, enabling effective use of the platform for daily operations including catering, resident care, and administrative communication.
- Continuously refined the application based on **direct feedback** from management and staff, ensuring the system met bespoke needs and supported all aspects of care home operations.
- Maintained stringent data governance practices, adhering to **GDPR regulations** to safeguard resident and operational data within the care home environment.

HireSplit, United Kingdom

April 2023 – Present

Full Stack Developer

- Developed and maintained scalable Referral based **recruitment software** application using technologies such as **C#, JavaScript, and ReactJS**, ensuring high performance and responsiveness to requests from the front-end.
- Implemented robust **MS SQL** solutions with efficient schema design and query optimization to handle large-scale data operations, ensuring data integrity and speed.
- Engineered continuous integration and deployment (**CI/CD**) **pipelines** using GitHub Actions, automating the **software development lifecycle** processes to improve deployment frequency and application reliability.
- Collaborated within agile development teams to plan, design, and deploy **software solutions using JIRA, Slack** that met rigorous business requirements and user needs.
- Conducted comprehensive **unit and integration testing** of 50+ features to identify and resolve system vulnerabilities and bugs, maintaining high-quality software standards.
- Managed **cloud-based infrastructure on AWS**, utilizing services such as EC2, S3, and RDS to enhance the scalability and security of web applications.
- Engaged in **cross-functional collaboration** with clients, product managers, designers, and other developers to refine software specifications and deliver tailored digital solutions.

Tata Consultancy Services, India

July 2021 – July 2022

Software Engineer, ZF Friedrichshafen AG, Germany

- Designed and implemented scalable data pipelines using SQL, Python and C++, streamlining the ingestion, transformation, and processing of large datasets to support **safety-critical system operations**.
- Automated data workflows**, improving efficiency and reducing error rates by 40%, while ensuring compliance with stringent safety and regulatory standards.
- Built and maintained 15 interactive Power BI dashboards to **monitor system performance** and operational KPIs, enabling real-time **decision-making for stakeholders** across technical and managerial teams, that drove operational improvements by 60% and aligned with strategic goals.
- Leveraged AWS cloud technologies to create and **manage secure, scalable infrastructure** and utilized Docker for containerization to streamline application deployment, reduce system downtime, and improve operational efficiency.

- Contributed to **infrastructure-as-code (IaC)** initiatives, enhancing database designs and improving system scalability to meet increasing data demands.
- Applied advanced data security techniques, including **masking and anonymization**, ensuring adherence to GDPR and other data protection regulations.
- Collaborated with diverse teams using one of Agile development methodologies, **scrum** to resolve complex data challenges, integrating analytics solutions that aligned with organizational objectives and enhanced overall system performance.

Nokia Solutions and Networks, India

July 2020 – May 2021

IoT Analyst

- Developed an **IIoT-based** solution for optimizing 5G module transportation, reducing delivery times by 30% and enabling in-transit assembly.
- Implemented a real-time **digital tracking system** for factory inventory, improving retrieval efficiency by 40%.
- Analyzed network data to enhance performance and reliability, significantly increasing customer satisfaction.
- Collaborated with multiple teams to leverage large datasets for strategic network improvements and operational efficiency.
- Designed data processing algorithms to ensure accuracy and compliance, effectively supporting data-driven decision-making and strategic planning.
- Advanced IIoT and digital technologies to solve logistical challenges and improve operational workflows in a dynamic industry setting.

SKILLS

Programming & Data Management: C++, Python, JavaScript, Node.js, SQL, HTML, CSS, RESTful APIs, Data Pipelines

Data Analytics & Visualization Tools: Google Analytics, Power BI, Tableau, SQL

IT Literacy & Software Proficiency: Microsoft Office Suite, GitHub, Cloud, Scrum methodology

Communication Skills: Stakeholder Communication, Report Writing, Data Presentation, Training Delivery

Numerical & Analytical Expertise: Regression Analysis, Machine learning algorithms, Strategic Insights

Drive & Proactivity: Process Optimization, Independent Working, Deadline Management

Certifications and Qualifications: GDPR Compliance, DBS certified, Health and safety certificate.

PROFESSIONAL CERTIFICATIONS

Data Science Methodologies **IBM** | Python for Data Science and AI **IBM** | Amazon SageMaker: Simplifying Machine Learning Application Development **Amazon Web Services** | AWS Certified Cloud Practitioner **Amazon Web Services**

PROJECTS

Optimized Path Planning for Strategic Applications (Dissertation Project)

- Collaborated with Defense Science and Technology Laboratory (DSTL) and PA Consulting to develop a Python-based path optimization algorithm.
- Leveraged simulated annealing and Monte Carlo simulations to improve operational efficiency and safety in strategic applications.
- The project reduced sensor detection risks by 25%, demonstrating proficiency in advanced algorithms, predictive modeling, and data-driven decision-making.

Tile Crack Detection via Image Processing & Deep Learning (Research Scholar Project)

- Lead the development of an automated tile defect detection system utilizing deep learning, achieving a remarkable 95% accuracy in pinpointing four distinct types of tile imperfections.
- Oversaw the curation of an extensive dataset comprising over 78,000 images hosted on AWS, which significantly refined the model's accuracy and bolstered the manufacturing quality assurance process.
- Successfully integrated the defect detection system with Raspberry Pi and LabVIEW, which catalyzed a 30% uplift in manufacturing efficiency.

LEADERSHIP & COMMUNITY ENGAGEMENT

- **University Ambassador:** Promoted academic initiatives and facilitated collaborations at the University of Leeds, fostering leadership, communication, and organizational skills while representing the university to prospective students and stakeholders.
- **Culinary Entrepreneur:** Managed all operational aspects of a food business venture, demonstrating strong project management, resource allocation, and strategic planning skills to ensure profitability and sustainability.
- **Online Tech Tutor:** Designed and delivered educational sessions on data analysis and programming concepts, enhancing community understanding of technology and promoting digital literacy through engaging and interactive teaching methods.