

VANSHUL KUMAR

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OBJECTIVE

Software Engineer with strong Python experience and a background in building automated test frameworks, data-driven validation pipelines, and CI/CD workflows on Linux. Seeking engineering roles where I can apply analytical problem-solving, framework development, and collaborative Agile practices to deliver high-quality software systems.

EXPERIENCE

GE Vernova

Edinburgh, Scotland

Software Project Engineer

Sep 2025 – Present

- Deployed and operated GridOS microservices for UK energy clients, including UK Power Networks (UKPN), supporting forecasting and grid optimisation workflows.
- Worked on the Vattenfall ADMS upgrade, investigating and resolving product and deployment defects, and troubleshooting server-side issues through hands-on Linux system administration to ensure platform stability and successful upgrades.
- Built and maintained cloud-native DevOps pipelines using Kubernetes, Helm, Argo CD, and Jenkins, enabling automated, repeatable microservice deployments.
- Mentored 4 interns, providing technical guidance, code reviews, and support on DevOps fundamentals.

GE Vernova

Edinburgh, Scotland

Software Project Intern

June 2023 – Sep. 2024

- Contributed in improving outage management system efficiency by 172 seconds by automating load testing using Groovy in SOAP UI, identifying and resolving critical bottlenecks.
- Developed a Bash script that automated real-time environment data updates, reducing manual effort by 300 seconds and ensuring seamless system startup.
- Led a cross-functional team of 6 in migrating from Chef to Ansible, that led to saving upto \$1M annually in licensing costs. Applied Agile/Scrum practices, with sprint planning, weekly standups & biweekly stakeholder meetings, to streamline automation infrastructure and reduce deployment time.

Cirium

London, UK

Aircraft and Research Engineering Intern

May 2023 – July 2023

- Enhanced aircraft maintenance prediction accuracy through SQL-based data cleaning, improving operational efficiency and reducing downtime.
- Developed a Python-based anomaly detection system analyzing 140,000+ daily flight entries from AWS, reducing response time through automated email alerts for deviations below 85% average.
- Contributed to predictive models for flight data analytics, leveraging algorithms such as Random Forest and Gradient Boosting to improve decision-making for ground operations.

Jobii

Coventry, UK

Software Engineering Intern

April 2022 – June 2022

- Designed and developed an interactive prototype using Node.js, HTML5 canvas, and CSS animations, enhancing user engagement and streamlining the UI/UX design process.
- Created Figma wireframes to understand stakeholder needs, resulting in a vibrant and user-friendly platform design.

PROJECTS

GestureIQ | MediaPipe, TouchDesigner

- Developed a real-time gesture-controlled interface integrated with video conferencing tools to enhance digital classroom engagement.
- Achieved 24 FPS rendering while keeping CPU usage under 30% through modular node optimization and adaptive gesture models. Integrated platforms like OBS, Microsoft Teams and Zoom.

SkyEfficiency: Airline Ops Optimisation (Hackathon Winner) | R Studio

- Analyzed operational data for 9 major airlines, identifying a direct link between turnaround times and business models, optimizing ground time by up to 12% for low-cost carriers.

- Automated data processing and visualization pipelines in R, delivering actionable insights via graphs and dashboards.
- Collaborated cross-functionally, winning Cirium's Hackathon for practical, data-backed operational improvements.

SenkuAI: Anime Chatbot with NLP | *NLTK, REST, SciKit Learn*

- Built an anime-themed chatbot integrating AniList GraphQL API for real-time content updates.
- Implemented an NLP pipeline and TF-IDF based response generation system with robust error handling.

SKILLS

Programming Languages: Python, C++, Java, SQL, Bash

Testing & Automation: Pytest, Automated Test Frameworks, CI/CD Pipelines, Jest

DevOps/Cloud: Docker, Jenkins, Git, Linux, AWS

Data/Machine Learning: Pandas, NumPy, Scikit-learn, Data Pipelines, SQL Analytics

Web: REST, HTTP, JSON, SQL Databases, Data Pipelines

Practices: Agile/Scrum, Debugging, Root Cause Analysis, Documentation

LEADERSHIP & ACTIVITIES

Sports & Social Committee Lead, GE Vernova

2025 – Present

Led office-wide sports and social initiatives, organising regular 5-a-side football sessions and board game events, strengthening cross-team collaboration and employee engagement.

EDUCATION

Coventry University

Coventry, UK

Bachelor of Science in Computer Science – Grade: First

July 2025

Relevant Coursework: Parallel & Distributed Systems, Machine Learning, Operating Systems, Data Science.