DILEEP KUMAR THIRUVENKADAM

✉ dileepkumarthiruvenkadam@gmail.com   📞 +49 15560729644   📍 Heilbronn, Germany   🔗 LinkedIn

PROFILE

DevOps and AI engineer with 2+ years of experience in cloud infrastructure, automation, and AI-driven software solutions. Proven track record in designing and deploying scalable applications using AWS, Kubernetes, Docker, and Terraform, combined with expertise in Python programming and LLM integration. Skilled in building robust CI/CD pipelines, infrastructure as code, and AI-enhanced automation to drive operational efficiency and innovation.

WORK EXPERIENCE AND INTERNSHIPS

Associate Software Developer – Quaking Aspen Private Limited   *Jan 2022 – Jan 2024*

- Internship: 6 months (2022) & Full-time: 1.5 years (2022-2024)
- Completed a 6-month internship focused on Python automation, software testing, and product module development.
- Transitioned to a full-time role where I took ownership of a complete product module, managing it through development, testing, and production.
- Developed and maintained automation scripts to optimize workflows, enhancing operational efficiency.
- Gained practical experience with AWS cloud services, including deployment and monitoring of applications.
- Collaborated closely with cross-functional teams, contributing to bug fixes, code reviews, and feature enhancements.
- Demonstrated adaptability and resilience during company restructuring, meeting project deadlines despite resource constraints.

Web Development Internship – Zoho Corporation   *Jan 2021 – Jan 2021*

- Developed responsive web pages using HTML, CSS, JavaScript, and ReactJS.
- Worked on internal tools and contributed to UI improvements for a live product.
- Gained exposure to version control (Git) and Agile development practices.

Machine Learning Internship – Freshworks   *Jan 2020 – Jan 2020*

- Understood the basics of machine learning, AI, and deep learning models.
- Applied supervised and unsupervised learning techniques using Scikit-learn and TensorFlow.
- Focused on real-time use cases involving predictions and classification tasks.

Data Science Workshop – Guvi Geek Networks   *Jan 2020 – Jan 2020*

- Completed training on Python for Data Science, covering data collection, preprocessing, and analysis.
- Used tools like NumPy, Pandas, and Matplotlib to build mini-projects and visualizations.
- Learned how to interpret data to solve business problems and support decision-making.

EDUCATION

HOCHSCHULE HEILBRONN – Heilbronn, Germany   *September 2024 - Present*
MASTER OF SCIENCE-SOFTWARE ENGINEERING AND MANAGEMENT

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY   *June 2018 - May 2022*
BACHELOR OF TECHNOLOGY - COMPUTER SCIENCE AND ENGINEERING

GPA: 1.9

VOLUNTEERING

Volunteering experience – NGO Community Service

- Volunteering experience includes active participation in NGO-led community initiatives across India, such as distributing food to the homeless, coordinating blood donation camps, engaging in environmental cleanliness drives, and assisting in educational programs for underprivileged children.
- These contributions demonstrate a strong dedication to community welfare and collaborative social impact.

CERTIFICATIONS

AWS Academy Cloud Developing

Cloud Computing and Distributed Systems – NPTEL

Programming, Data Structures, and Algorithms Using Python – NPTEL

Introduction to Programming and Problem Solving in Python – NPTEL

SKILLS

Java, Python, C, SQL, JavaScript, Bash, HTML, CSS, Angular, RESTful APIs, Node.js, AWS, Terraform, Kubernetes, Docker, GitHub Actions, Postman, MongoDB, MySQL, Data Visualization, Data Cleaning, Git, JIRA, Wireframing, UI/UX, Agile (scrum), MIRO, Leadership, Communication, Team Collaboration, Management, BPMN, Analytical Thinking, Problem Solving

PROJECTS

Nunnarivu AI Integration
Jan 2025 – Present

- Developed an experimental AI-driven layer integrating LLM agents with system workflows, automation logic, and external services.
- Engineered backend Python components and designed APIs, leveraging prompt engineering and agent behavior understanding to optimize performance.
- Enhanced system automation and responsiveness by creating seamless AI integration within complex workflows.

VoidVision Automated Video Generation
Jan 2025 – Present

- Designed and implemented an end-to-end automated video generation system converting short text prompts into YouTube-ready videos.
- Built a robust pipeline including LLM reasoning, script generation, text-to-speech, dynamic video rendering, containerized modules, and API-based publishing.
- Strengthened expertise in software architecture, ML-enabled components, and automation in a production-like environment.

DevOps and SecOps

- Developed and deployed a REST API for storing notes as a Docker container.
- Integrated a CI pipeline with pytest and pytest-cov for test execution and code coverage.
- Submitted test results to CodeClimate and added a Snyk Python security scan.
- Deployed the app to Google Cloud Run and integrated OpenTelemetry for traceability, sending traces to Cloud Operations with custom spans.

Designing User Interface

- Redesigned a website using Figma, focusing on creating an efficient and enjoyable user experience.
- Applied UI/UX principles including typography, color theory, and usability to enhance user engagement and goal completion.

3D Traffic Simulation

- Developed a 3D traffic simulation using Unity to model realistic vehicle and pedestrian behavior at intersections.
- Implemented traffic lights, pathfinding algorithms, and collision handling to simulate urban traffic flow for educational and research purposes.

Cloud Infrastructure Automation on Google Cloud

- Built and managed scalable cloud infrastructure on Google Cloud Platform (GCP) using Terraform for Infrastructure as Code (IaC).
- Orchestrated containerized applications using Kubernetes (GKE).
- Automated resource provisioning, improved deployment efficiency, and ensured high availability and scalability.

LANGUAGES

English (Fluent), German (Basics), Tamil (Fluent)