ANANDA KSHITIJ

College Park, MD, USA | P: (240) 462-3256 | anandakshitij1997@gmail.com | LinkedIn

SUMMARY

Software Engineer with 5+ years of expertise in developing and deploying highly scalable cloud solutions. Specialized in building **microservices**, automating **CI/CD** pipelines, and optimizing cloud infrastructure on platforms like **AWS and Azure**. Proficient in **Golang, Python, Kubernetes, Terraform, Docker, and DevOps methodologies**.

SKILLS

- **Programming Languages:** Golang, Python, Java, C++, React, Typescript, Bash/Shell, NodeJS, R.
- **Cloud and Devops**: AWS, Azure, Kubernetes, Docker, Terraform, Helm, GitHub Actions, Spinnaker, Jenkins, Grafana, Prometheus, NewRelic, Ansible.
- **Databases & Messaging:** DynamoDB, Elasticsearch, MongoDB, Cassandra, Kafka.
- **Machine Learning:** Python, Jupyter Notebook, Scikit-Learn, TensorFlow, PyTorch, NumPy, Pandas, GeoPandas.
- **Data Analytics & Visualization:** MySQL, NoSQL, PowerBI, Tableau, Hadoop, Hive, Matplotlib, Plotly, Seaborn, Excel.
- **Testing & QA:** Selenium WebDriver, Cyprus, Postman, JMeter, NeoLoad, Robot-Integration Testing, Visual Studio Code.

WORK EXPERIENCE

US DEPARTMENT OF AGRICULTURE
Maricopa, Arizona

Software Engineering Intern
06/2025 – Present

- **Redesigned and modernized** the Nitrogen Recommendation System by migrating legacy codebase to a React frontend and Python backend, enabling the platform to scale efficiently for up to **100K concurrent users** while reducing system response time by over **60%**.
- **Optimized machine learning model performance** by tuning preprocessing pipelines and caching logic, reducing nitrogen recommendation runtime from **4.3 minutes to 65 seconds**, significantly accelerating feedback loops for farmers.
- **Integrated GeoServer with the nitrogen tool**, leveraging **GeoPandas** to compress and preprocess shapefiles, achieving a **30% reduction** in rendering latency for agricultural map layers.

HEWLETT PACKARD ENTERPRISE
Bangalore, Karnataka

Cloud Engineer II
07/2023 – 07/2024

- Developed scalable microservices using Golang for API gateway and routing, enabling robust management of multi-cloud and edge infrastructures for enterprise customers.
- Automated deployment processes leveraging Terraform (IaC), GitHub Actions, and Spinnaker CI/CD, improving scalability and reducing deployment time by **80%**.
- Optimised API query responses by integrating pagination with DynamoDB, achieving consistent response times of **20-50** ms.
- Conducted rigorous performance and load testing with Locust and NeoLoad, pinpointing system bottlenecks and achieving **33.3%** reduction in AWS cloud operational costs.
- Built Python-based automation script utilizing Terraform and **AWS** Boto3 for streamlining KMS encryption of logs, saving **20+** engineering hours per sprint.

NOKIA NETWORKS
Bangalore, Karnataka

Software Engineer
08/2019 – 07/2023

- Designed and implemented cloud-native fault detection microservices in Golang, managing real-time network monitoring for clients like Verizon, AT&T, Airtel, supporting over **1 million** active fault notifications using Kafka and Elasticsearch.
- Integrated Jenkins-based CI/CD pipelines with Helm and Kubernetes, facilitating rapid microservice deployments and achieving **40%** faster software releases with **zero downtime**.
- Led a **7-member** Agile team as Scrum Master and Engineering Lead to deliver critical alarm notification systems for 4G, 5G, vCU and vDU networks, directly contributing to securing a **$20M** project.
- Built high-performance, interactive UI components in React, including a lazy-loaded table rendering **100K** fault records in under **2 seconds**, reducing initial load time by **60%** and improving user experience.
- Conducted JMeter load testing simulating **50K+** RPS DDoS attacks, identifying and fixing 3 critical bottlenecks that improved system scalability by **15%**.

PROJECTS

MULTILINGUAL COMPLEX NER SYSTEM: Created and fine-tuned a multilingual AI/ML-based NER system using BERT-Large, XLM-RoBERTa, and CRF for nested entity recognition across datasets like MultiCoNER V2.

High-Availability E-Commerce Platform: Architected and deployed a highly available, secure e-commerce platform on AWS—leveraging Auto Scaling, RDS (MySQL), CloudFront/S3, and WAF with SSL/TLS—to harden against SQLi/XSS and deliver low-latency global performance during traffic spikes.

EDUCATION

UNIVERSITY OF MARYLAND
College Park, MD
Master of Engineering in Software Engineering
Expected 05/2026

IIIT Bangalore
Bangalore, Karnataka
Post Graduate Diploma - Data Science and Machine Learning
01/2022 - 01/2023

PES Institute of Technology
Bangalore, Karnataka
Bachelor of Engineering in Electronics and Communication
08/2015 - 05/2019