#### **DHEERAJ REDDY INUGALA**

# **Professional Experience**

### **Spectrum (Charter Communications Inc.)**

May 2024 - Present

Network Software Engineer

Denver, CO

- Engineered NetOps360, an enterprise-scale network platform that streamlines router configuration management and health monitoring through a user interface. Successfully implemented the system for real-time metrics processing and automated deployments across 200+ network devices, achieving 70% reduction in configuration errors and 50% improvement in network operation efficiency.
- Developed and deployed this platform using ReactJS frontend, Python backend, and FastAPI framework, implementing RESTful API architecture for scalable system integration. Designed automated configuration deployment system with standardized templates achieving 50% reduction in setup time, while integrating real-time network monitoring system for automated incident response and proactive issue detection.
- Implemented CI/CD pipeline using Jenkins for automated unit testing (Pytest for Python/FastAPI, Jest/React Testing Library for React) and continuous deployment on AWS, with containerized microservices architecture using Docker.

Trimble Inc. Sep 2023 – May 2024

Software Engineer Intern

Westminster, CO

- Engineered and implemented the frontend user interface for Trimble SketchUp AI Assistant using ReactJS, featuring real-time 3D model visualization and automated Ruby code generation for SketchUp application.
- Developed RESTful APIs using FastAPI to integrate Azure OpenAI services with efficient prompt engineering and
  response handling, while implementing an automated Python testing framework to validate AI-generated Ruby
  code, resulting in 85% accuracy in Ruby Code Generation through comprehensive validation and error handling.

## **Spectrum (Charter Communications Inc.)**

Jun 2023 - Aug 2023

Network Software Engineer Intern

Denver, CO

- Developed the prototype of a network health monitoring platform using ReactJS and Flask, implementing real-time data visualization and network health metrics such as network latency, bandwidth utilization across 50+ devices.
- Implemented RESTful APIs and data processing pipelines, collect and analyze network performance metrics, achieving 40% improvement in issue detection time through automated alert monitoring system.

## **Tata Consultancy Services**

Jun 2021 - Jun 2022

Associate Software Engineer

Hvderabad, India

• Optimized Equitable's flagship applications (Broadridge-Investigo and LABS) by implementing performance monitoring, identifying bottlenecks, and executing targeted improvements across frontend and backend layers, achieving 25% faster response times. Established automated deployment processes using Azure DevOps CI/CD pipeline, ensuring consistent performance improvements across all application updates.

#### **Technical Skills and Certifications**

Languages: Python, Java, C++, Go, Javascript, SQL, HTML5, CSS

**Frameworks**: ReactJS, VueJS, Flask, NodeJS, Spring Boot, FastAPI, Tailwind CSS, Netmiko, SQLAlchemy **Tools**: Amazon Web Services (AWS), Docker, Jenkins, Ansible, Git, Kubernetes, Pytest, Jest, React Testing Library

Certifications: AWS Certified Solutions Architect, Microsoft Azure Fundamentals - AZ-900

### Education

### **University of Colorado Boulder**

Aug 2022 - May 2024

Master of Science in Computer Science (GPA: 3.93 / 4.00)

Boulder, CO

Kakatiya Institute of Technology and Science

Aug 2017 - May 2021

Bachelor of Technology in Computer Science (GPA: 3.62 / 4.00)

Warangal, India

## **Projects**

### FinTrack - Expense Tracker

- Developed a personal finance management application using ReactJS, FastAPI, Python, and PostgreSQL, enabling users to track expenses, set budgets, and analyze spending patterns through interactive dashboards.
- Implemented real-time transaction processing pipeline using SQLAlchemy and FastAPI WebSockets, handling
  concurrent user sessions and providing instant updates, automated CI/CD pipeline with GitHub Actions and
  deployed containerized application on AWS.