# **UDIT SHARMA**

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#### **SUMMARY**

Skilled Software Engineer with expertise in Python, C++, React Native, and AWS, specialized in full-stack development, CI/CD pipelines, and performance optimization. Strong problem-solving abilities with experience in system design, REST API integration, and machine learning. Adept at team collaboration, providing technical support, and automating workflows using Docker and Appium.

#### **EDUCATION**

Santa Clara, CA Santa Clara University

Master of Science (M.S) - Computer Science and Engineering

March 2022

**University of Petroleum and Energy Studies** 

Dehradun, India

Bachelor of Technology (B.Tech) - Computer Engineering: Specialization in IoT

June 2020

## **EXPERIENCE**

## Software Development Engineer - Amazon Inc., Sunnyvale, CA

April 2022 - Present

- Developed a full-stack React Native application for Amazon Firestick, integrating CI/CD pipelines to optimize deployment and testing, ensuring a seamless user experience, utilizing Amazon S3 buckets, Arcus Server, and Amazon APIs.
- Developed a custom OpenSearch performance dashboard for Firestick app, enhancing performance monitoring and analysis.
- Created System Design and Threat Model of React native app for Amazon AWS Security Review using Design Inspector.
- Optimized Unity application based performance for Amazon OEM partners through heaptrack profiling, delivering significant improvements in responsiveness and speed.
- Developed a C++ plugin for Perfetto integration with Unity apps, utilizing C# for seamless embedding within Unity.
- Engineered and tested embedded software for various hardware platforms, including high-end multimedia systems, game engines, and luxury automotive in-vehicle applications, focusing on optimizing system performance.
- Provided technical support to customers and OEM partners by resolving tickets, addressing escalations, and troubleshooting software issues, including debugging and resolving ANR crashes using GDB and proprietary tools, leading to improved app stability and customer satisfaction while fostering collaboration for future development initiatives.
- Created comprehensive technical documentation for engineers and customers, providing detailed guides to streamline collaboration and project workflows, while mentoring and collaborating with cross-functional teams to define product vision, strategies, and develop roadmaps, contributing to the successful execution of complex projects.
- Enabled batch-mode builds using Docker containers in no-internet environments, streamlining app development pipelines.
- Integrated UCC (Universal Context and Control) and Appium for automated testing, enhancing test coverage and efficiency.
- Implemented Amazon internal plugins for OEMs, ensuring successful integration and delivery to partner companies.
- Contributed in Amazon Kindle Scribe 2022 release e-ink design, with comprehensive testing and meeting quality standards.

#### **PROJECTS**

## IoT-Enabled Smart Home Automation System - Raspberry Pi, AWS (IoT Core, Lambda, DynamoDB) MQTT, Python, Node.js

Developed a smart home automation system using Raspberry Pi and IoT sensors (temperature, motion, light), integrated with AWS IoT Core for real-time data processing and remote control via a mobile app using MQTT, with AWS Lambda for automation and DynamoDB for data storage, ensuring security through device authentication and encryption.

### Automated Inventory Management System - Python, Flask, MySQL, React.js, Docker, AWS

Created a full-stack automated inventory management system using Python (Flask), MySQL, and React is, incorporating real-time tracking, role-based access control, and AWS cloud deployment with Docker, resulting in 70% reduction in inventory holding costs.

#### A Novel Crop Production Prediction Analysis - Python, Machine Learning

Implemented ML model using SVM, KNN and Decision Tree to analyze multiple factors that predict crop yield and bring awareness among farmers about the cultivation of the crops with Decision tree giving an accuracy of 85%.

## **SKILLS**

Languages: Python, C#, C, C++, SQL, Java, JavaScript, TypeScript

Web & Mobile Technologies: React.js, React Native, HTML, CSS, Bootstrap, PHP, WordPress, Node.js

Databases: MySQL, phpMyAdmin, JDBC, AWS (S3, EC2, ECS, ECR), Firebase, Hadoop

Platforms & Frameworks: Docker, Appium, Perfetto, JSON, REST API, Machine Learning, OpenCV, OpenGL, Linux, Git, Github, Android Studio, JIRA, Confluence, Unity, Jenkins, Cisco PacketTracer7.1.1, StarUMLv3.0.2

**IOT:** Raspberry Pi 3B+, Raspberry Pi 4B, NodeMCU, Raspbian, Arduino