Santosh Kumar Aenugu Seattle, WA | 541-745-9012 | a.santoshkumar1995@gmail.com
LinkedIn | GitHub

SUMMARY

Software Development Engineer with 6+ years of experience building scalable and high-performance systems at AWS and Qualcomm. Expertise in distributed systems, storage protocols, cloud infrastructure. Proven success in delivering low-latency, high-throughput features for EC2 and Android platforms. Skilled in C++, Python, Linux, system-level performance optimization. Passionate about delivering customer-impacting solutions at scale.

TECHNICAL SKILLS

Languages: C++, Python, C, Bash, Java
Frameworks & Tools: Git, React, Hadoop, MapReduce, HDFS, AWS EC2, NVMe
Platforms: Linux/Unix, Android, AWS

PROFESSIONAL EXPERIENCE

Amazon Web Services (AWS) – Seattle, WA ***Software Development Engineer II*** (**Aug 2021 –Present)**

Designed and integrated multi-core scalable EBS client APIs interfacing with NVMe libraries, improving parallel IO performance for next-gen EC2 platforms

Led development of control-plane components for Nvmr-direct, enabling hardware offload support achieving record-breaking EBS performance upto **620K IOPS**, **120 Gbps**

Delivered perr tuning data layout optimizations resulting in **12% IOPS gain** from 500K to 560K

Built mock-IO simulator to evaluate current architectural limits influencing design decisions for future high-performance instance types

Developed automated test frameworks to validate protocol correctness and droplet configuration scenarios across performance tiers

Reduced deployment downtime and hardware failures by enhancing unit/integration testing for live migration and session persistence to catch issues earlier during releases

Deployed performance canaries to production to ensure reliable customer SLA compliance

Contributed to hiring interviews and onboarding support by mentoring 3 junior engineers

Key Technologies: C, C++, Python, NVMe, Linux, EC2, EBS, Git

Qualcomm Innovation Center – San Diego, CA ***Software Engineer (*2019 – Aug 2021)**
Developed display rendering logic to manage overlapping pixels on foldable Android screens

Built Field Sequential Coloring (FSC) display support to increase color accuracy in display drivers

Validated display pipeline components in Android modules to increase refresh-rate in phones

Key Technologies: C, C++, Android, Linux Kernel, Git

PROJECTS

MapReduce Engine Implementation – Hadoop, Java, Python, HDFS

Developed single-node MapReduce engine with custom master and worker node execution

Implemented parallel mappers and reducers in Jython for efficient distributed processing of large datasets.

Personal Portfolio Website – React, HTML/CSS, GitHub Pages
Created and deployed personal portfolio on GitHub pages to showcase projects, resume.

EDUCATION

M.Eng. Computer Science – Oregon State University, Corvallis, OR GPA: 3.54/4.00 | May 2019

B.E. Birla Institute of Technology and Sciences, Hyderabad, India GPA: 7.61/10.00 | June 2017

PUBLICATIONS

Urban Floods in Hyderabad under Present and Future Rainfall Scenarios
Published in *Natural Hazards (Springer)* | IEEE Link

INTERESTS

Competitive programming | Distributed Systems | High-performance Computing | System Design