AMAN KHALID

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EDUCATION

St. Louis University, St. Louis, MO, Masters in Computer Science GPA: 3.88   AUG 2019 - MAY 2021
Relevant Courses: Computer Networks, Advanced Algorithms, Software Architecture, Machine Learning
Amity University, Delhi, *Bachelors* in Computer Science & Engineering CGPA: 3.5   AUG 2013 - MAY 2017
Relevant Courses: Java Programming, Programming in C, Distributed Systems

WORK EXPERIENCE

SLU School of Medicine (St. Louis, MO) | Research Intern   MAY 2020 – AUG 2020

● Developed My COVID19 Tracker app using **React Native** for St. Louis County Department of Public Health.
● Created the backend of the app with **node.js** using Hyperledger Fabric's chaincode, and hosted it on **AWS**.
● 1000+ downloads on Google Play Store with a rating of 4 and 4.5 on Apple's App Store.

St. Louis University (St. Louis, MO) | Research Assistant   OCT 2019 - PRESENT

● Implemented a system to serve ML algorithms in a distributed environment using **Python** and **Docker**.
● Achieved 100% automated scaling up and down of containers using custom scripts written with Docker SDK.
● Won the ComSoc student award for work published in IEEE NFV-SDN 2020, on network optimization.

Marsplay (New Delhi, India) | Backend Developer   OCT 2017 - NOV 2018

● Designed microservices using **Django** for inventory management, users/influencers, and administration.
● Built website scrapers in **Python** to gather inventory details for 8 categories from **e-commerce** sites for clothing.
● Reduced network overhead by 30% by implementing event bus for storing scraped data with **RabbitMQ**.

MYOLO (New Delhi, India) | Fullstack Developer   JUL 2016 - SEP 2017

● Worked on the backend to implement interest mapping, location services, and caching, with latency **less than 100ms**.
● Simplified the setup & maintenance of staging, development, and production environments hosted on **AWS**.
● Coordinated API provisioning and versioning for outsourced client-side app developers(mobile) with **Java Spring**.

SKILLS

Programming Languages - Python, C++, Java, JavaScript; **Server/Cloud** - k8s, Apache, Nginx, Docker, OpenStack
Backend Frameworks - Django, Node.js, Java Spring; **Frontend Frameworks** - React, Vue, Backbone.js

PROJECTS

● **Optimized Cuckoo Filter (St. Louis University)** - Built a variant of a cuckoo filter for burst tolerance, low latency, and throughput for membership testing, optimized for cloud data stores operating at high workloads, in **Java**.
● **Influencer Hunter (Marsplay)** - Made a tool to find the most prominent profiles under a certain hashtag or location on Instagram and analyze their reach, with web scrapers(**python**) for data gathering.
● **Distributed Membership protocol** - An emulated environment of nodes, arranged in a hash table, communicating with each other through message passing to check for node failures, written in **C++**.

PUBLISHED RESEARCH

Aman Khalid and Flavio Esposito. ''Optimized Cuckoo Filters for Efficient Distributed SDN and NFV Applications". In Proc. of 2020 IEEE Conference on Network Function Virtualization and Software Defined Networks (NFV-SDN 2020). Virtual Event. November 2020.