SANJAYKUMAR MUTHUKUMAR

Ph: (782) 882-1194 | Email:m.sanjay94@gmail.com |LinkedIn:https://www.linkedin.com/in/iamsanjay94
https://msanjay94.github.io/portfolio

Professional Experience

Article - Vancouver, Canada - Software Engineer II   January 2022 - August 2022

- Helped build various metrics and alarms in Cloudwatch to significantly improve the observability of the system and facilitate quick response to issues.
- Designed and implemented decoupling of 'ETA' service and applied a phased deployment approach with increased observability to ensure smooth rollout with negligible disruption of service.
- Led the decoupling of 'Reservation' service from a monolith into a microservice which was built with an event-driven architecture using Apache Kafka.

Insightly Inc. - Vancouver, Canada - Software Engineer II   January 2021 - November 2021

- Designed and implemented Xero integration to help customers with financial invoicing and reporting directly inside Insightly CRM. This helped significantly drive the conversion rate up.
- Built some key features of Insightly Service such as Workflows which uses an event-driven architecture using Amazon SQS.
- Significantly contributed in architecting and implementing Insightly Portal which is the customer facing website that connects customers of Insightly Service with their customers.

Zoho Corporation - Chennai, India - Software Engineer   May 2016 - August 2019

- Analyzed and improvised Nginx source code to allow dynamic server addition/removal which **reduced the number of server reloads by 20%** which in turn reduced the number of abruptly dropped client connections.
- Analyzed and implemented key technologies like HTTP/2.0, ECDSA, OCSP Stapling, CAA which improved the security of the application.
- Designed and implemented a Let's Encrypt ACME client to automate and scale certificate purchase process which **reduced time consumption by 90% and increased revenue by 20%**.
- Designed and implemented a Web Application Firewall in Nginx using Lua to provide a quick solution to block spurious requests. The tool can be used to apply rules within seconds across 100+ application servers.

Projects

Artist Classification using song lyrics - Python, NLTK, React.js
- Experimented with Naive Bayes classifier algorithm to classify artists using their song lyrics. NLTK library was used for the algorithm. The classification was performed with an accuracy of ~76%.
- Ongoing research to try and detect deepfake audio by applying the classifier on the utterance data of the person impersonated.

Technical Skills

Languages : Java,C#, Python, C, C++, JavaScript, HTML, CSS
Databases : MySQL, MS SQL, MongoDB, PostgreSQL
Frameworks : Spring, Struts, Node.js, gRPC
Tools : Nginx, IPVS, Keepalived, Tomcat,Kafka, AWS, Docker, Git, Hg, Jira

Education

Master of Applied Computer Science (GPA 4.15/4.3)
Dalhousie University, NS, CA
Key Courses : Cloud Computing, Network Security, Serverless Data Processing

Bachelor of Engineering - Computer Science (GPA 8.3/10)
Anna University, TN, IN
Key Courses : Data Structures, Analysis of algorithms, DBMS, Object Oriented Programming