K Sundar Rajan
Software Engineer

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Work Experience

Freshworks Inc.   *Chennai*
Software Developer Intern   *July 2020 - Ongoing*
- Designed a distributed system running database services, which is fault tolerant and resilient using AWS, also providing multi-tenant solutions. Moved all services from local systems to cloud, reduced RAM usage and improved the productivity of developers by 50%.
- Containerized a multitude of frameworks like Cassandra, Elasticsearch, Redis, etc. using Docker and enabled communications between them using host network and volumes. Reduced the RAM consumption by 50% and reduced the storage used by 80%.
- Wrote a cookbook in Chef Infra and deployed using Opsworks(AWS), which contained recipes to automate the log rotation from an EC2 instance to an S3 bucket.

Freshworks Inc.   *Chennai*
Software Developer Intern   *May 2018 – July 2018*
- Integrated 3rd party apps such as Tokbox, ZOHO Books, ZOHO Inventory, etc with the Freshdesk helpdesk software and also built employee productivity tools on it using Freshdesk's SDK built on NodeJS. Increased agent productivity by reducing context switching and integrating data across multiple platforms.

Education

SSN College Of Engineering (affiliated with Anna University)   *Chennai*
B.E. in Computer Science and Engineering - **CGPA :** 8.22   *August 2016 – May 2020*

Projects

Distributed Data Pipeline for Identifying Cab Hotspots using Geofencing in Real-Time   *Chennai*
Technologies used - Microsoft Azure, Apache Pulsar, Redis, Google BigQuery, Python, NodeJS   *November 2019 - March 2020*
- Set up a 3 node Pulsar cluster to ingest live stream of location coordinates from cabs which is transformed to its corresponding geofence using Pulsar Functions and then stored in a Redis datastore, plotted on Google Maps to identify cab hotspots in real-time.
- Periodic snapshots of Redis datastore is taken and stored in Google BigQuery for analytics.

Elevator Simulation ⌨   *Chennai*
Technologies used - Python,Flask,JavaScript   *September 2019 - October 2019*
- An application which simulates the functioning of K elevators in an N floored building using 2 algorithms - Shortest Path First and Look.

Adaptor for ML - worked in Resileo labs (Indian Institute Of Technology, Madras) ⌨   *Chennai*
Technologies used - Python, Postgres, JavaScript, Flask   *December 2018 - February 2019*
- Created an adaptor application using Python & JavaScript which helps users feed any ML algorithm to the application, connect to a database (Postgres) and point to a table, choose the dependent and independent variables from the table, run the given ML algorithm and see the predictions in an user friendly way.

Technical Strengths

Languages	C++ · [Fluent]; Python, JavaScript, HTML/CSS, SQL, NodeJS · [Comfortable]; Java · [Beginner]
Technologies	AWS, Docker, Redis, Apache Pulsar, Postgres, Chef Infra, Microsoft Azure
Skills & Interests	Distributed Systems, Streaming data, Pub-Sub Systems & Message Queues, Data Structures, Algorithms

Achievements

2017	**ACM ICPC,** Member of team Code_Overload which ranked 51st in Asia Regionals - Kharagpur
2017	**ACM Provincial Contest '17,** Member of team Code_Overload which ranked 4th in Chennai Regionals
2016	**Indian National Olympiad in Informatics(INOI),** Qualified by clearing Zonal Computing Olympiad
2018,2019	**Facebook Hackercup,** Qualified for second round
2018,2019	**Google Code Jam,** Qualified for second round
2016-19	**Technical Symposiums,** Won several programming contests in various college techfests

Organizations and Interests

Google AI | Explore ML	Student Facilitator for the Google AI's Explore ML Program. Conducted ML workshops for college students.
Codechef Trainer	Trainer at a week long programming workshop conducted by Codechef for School and College students.
Competitive Programming	Active Problem Solving on Codeforces and Codechef
SSN Coding Community	Head of SSN Coding Community - MAXFLOW. Taught and mentored students for 4 years, conducted weekly meetings and programming contests on various platforms.
Professional Carnatic Violinist	Music lover. Performed over 300 concerts in various prestigious halls all over India such as Shanmukhananda Hall (Mumbai).