

# K Sundar Rajan

SOFTWARE ENGINEER

✉ sundarrajan.k.10@gmail.com | 📱 sundar-10 | 🌐 sundarrajan/

## 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 from around 6 GB to 3 GB 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 a 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).