

K Sundar Rajan

SOFTWARE ENGINEER

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Work Experience

IIT Madras

Chennai

INTERN 🌐

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.

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.

Guvi Geek Networks, IITM Research Park

Chennai

INTERN

Noc 2017 – Jan 2018

- Worked as a problem setter for CodeKata - their online library of Competitive Programming questions. Set more than 100 problems in varying levels of difficulties.

Education

SSN College Of Engineering

Chennai

B.E. IN COMPUTER SCIENCE AND ENGINEERING

August 2016 – May 2020

- CGPA : 8.22

Projects

Geo-Fencing Based Approach for Identifying Cab Hotspots 🌐

Chennai

TECHNOLOGIES USED - APACHE PULSAR, PYTHON, NODEJS, REDIS

November 2019 - Ongoing

- Identifies the cab hotspots in a geo-location based on the live location of cabs which is a stream data ingested into the pulsar message queue.
- Each cab's current geofence is found (using R-Trees) and stored in a Redis database. An alert is sent if the cab density in any geo-location exceeds a certain threshold value.
- Predicts the cab demand for the next day based on historical data.

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.

Speech Recognition 🌐

Chennai

TECHNOLOGIES USED - PYTHON, TENSORFLOW, MICROSOFT AZURE

October 2018 – December 2018

- Recognised several words from speech dataset available in the Tensorflow website by converting it into spectrogram images. Different CNN architectures were run in a Microsoft Azure Standard NC6 (6 vcpus, 56 GiB memory) instance and the best model(best accuracy) was obtained.

Technical Strengths

Languages C/C++ (Proficient), Python (Adept), JavaScript (Adept), HTML/CSS (Adept), SQL(Adept), Java (Beginner)

Technologies Apache Pulsar, Redis, Microsoft Azure, Flask, Postgres, Tensorflow

Skills & Interests Data Structures, Algorithms, Deep Learning, Distributed Systems

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**, Cleared qualification and first round

2018/2019 **Google Code Jam**, Cleared qualification and first 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.

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).