RAHUL RANGARAJAN KANNAN

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EDUCATION

SRI VENKATESWARA COLLEGE OF ENGINEERING, SRIPERUMBUDUR
Bachelor of Technology, Information Technology (CGPA: 9.66/10) 2017 – 2021
Relevant coursework – Programming and Data Structures, Database Management Systems, Software Engineering, Computational Intelligence, Computer Networks, Web Programming, Data Science using Python, Big Data Analysis.

KOLA PERUMAL CHETTY VAISHNAV SENIOR SECONDARY SCHOOL, CHENNAI
CBSE Class XII – Computer Science (Marks: 409/500) 2017

JAWAHAR VIDYALAYA SENIOR SECONDARY SCHOOL, CHENNAI
CBSE Class X (CGPA: 9.6/10) 2015

ACADEMIC PROJECT EXPERIENCE

AI-powered Real-time Vehicle Tracking System May 2020 – Present
- Tracking of vehicles in real-time using unique attributes extracted from CCTV footage.
- License plate recognition, vehicle make, model, color, damage, location, peculiar attachments – Real-time database
- 7 neural networks and algorithms with 12 distinct predictions.

Attention Span Tracking in Online Education using Artificial Intelligence Sep. 2019 – Mar. 2020
- Advanced proctoring system developed using Image processing in Python to prevent cheating in online classes and exams using webcam and microphone.
- Blink rate detection, Eye-gaze tracking, Emotion classification, Body posture estimation, Background noise detection, and Facial Recognition – Multithreaded functions.
- 250ms inference time and 84.62% accuracy.

Self-Driving Car Simulation using Convolutional Neural Networks Nov. 2018 – Mar. 2019
- Developed a CNN to drive a car autonomously in GTA V with 97.8% training accuracy and 90% validation accuracy.
- Training data collected manually from 20+ hours of gameplay.
- Advanced lane detection, Vehicle and Obstacle detection, and Collision avoidance.

American Sign Language Recognition and Assistive tool for visually challenged people Aug. 2018 – Oct. 2018
- Implemented a CNN to detect and recognize hand gestures of American Sign Language with 91% accuracy.
- Trained using the dataset consisting of 300 images for each class for a total of 26 alphabets and 10 digits.

RESEARCH EXPERIENCE

2020 IEEE MIT Undergraduate Research Technology Conference (International) Boston, MA
Title – **Real-time Attention Span Tracking in Online Education** Oct. 2020
- Research paper accepted by the 2020 IEEE MIT URTC International Conference – Lead Author.
- Presented at the conference, and will be published at the IEEE Xplore by the end of 2020.

INTERNSHIP EXPERIENCE

HUEINT PRIVATE LIMITED Chennai, India
AI/ML Intern Aug. 2020 – Present
- Developed an AI Time table scheduler using Genetic algorithms for Hueazia, an Institution management suite.
- Developing an automated question generator for teachers using Natural Language Processing.

DOYEN SYSTEM PRIVATE LIMITED Chennai, India
Software Developer Intern May. 2019 – June 2019
- Learned about Oracle, Cloud, NLP, APEX, and chatbots.
- Developed a voice-based chatbot using ALAN AI for an interactive news application.

ACHIEVEMENTS

Finalist of Smart India Hackathon – 2020 (National Level Hackathon) Aug. 2020
- Project – Vehicle Recognition and Compilation in Database software.
- Selected as Top 5 from over 450,000 students all over India.
- A Memorandum of Understanding was signed between SVCE and the Govt. of Madhya Pradesh through this project.

Secured second place in Hack & Tackle 2.0 (National Level Hackathon) Feb. 2020
- Project – Attention Span Tracking in Online Education using Artificial Intelligence.
- Second place from over 100 teams.

Secured first place in Coding Competition in SVCE (Institution Level Contest) Jan. 2020
- First place among 120 students from CS, IT, ECE departments – HackerEarth

Secured second place in SVCE Innovates (Institution Level Contest) Mar. 2019
- Project – Self-driving car simulation using Convolutional Neural Networks.
- The second best innovative project among 60 teams at the Student's Research Day.

Secured second place in Think-a-thon (Institution Level Hackathon) Feb. 2019
- Project – Lab report digitization using Optical Character Recognition.

Secured first place in Protocol 21e (National Level Contest) Oct. 2018
- Project – American Sign Language Recognition and Assistive tool for visually challenged people.

Budding Engineer Award – SVCE (Institution Level Award) Aug. 2018
- Meritorious academic performance (Topper of the IT department).
- Significant Research and Project Contributions.

TECHNICAL SKILLS

Languages	**:**	C, C++, Python (NumPy, Pandas, Seaborn, Keras, Scikit-learn, Tensorflow).
Databases	**:**	MongoDB, SQL, Oracle.
Development	**:**	HTML5, CSS3. Javascript, NodeJS, ReactJS, JQuery.
Frameworks	**:**	Flask, Django, AJAX, AngularJS.
Tools	**:**	Anaconda, OpenCV, MS Office, Adobe Photoshop, Adobe Illustrator.
Operating Systems	**:**	Linux, Windows.
Areas of Interest	**:**	Artificial Intelligence, Deep Learning, Machine Learning, Computer Vision, Natural Language Processing, Web Development, Cyber Security, and Blockchains.

CERTIFICATIONS

Cloud Computing by IIT Kharagpur – NPTEL Ongoing
Machine Learning with TensorFlow on Google Cloud Platform Specialization – Coursera Jun. 2020
Python for Data Science and Machine Learning Bootcamp – Udemy May. 2020
Neural Networks and Deep Learning – Coursera Sep. 2019
The **Web Developer** Bootcamp – Udemy Aug. 2019
Introduction to **TensorFlow** for Artificial Intelligence, Machine Learning, and Deep Learning – Coursera Apr. 2019
Blockchain A-Z: Learn How To Build Your First Blockchain – Udemy Mar. 2019

POSITIONS OF RESPONSIBILITY

Chairman of Computer Society of India, Student Chapter – SVCE 2020 – Present
Joint Secretary of Computer Society of India, Student Chapter – SVCE 2018 – 2019
Member of Institution's Innovation Council – SVCE 2018 – Present
Member of LEO Club – SVCE 2017 – Present