RAHUL KUMAR

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EDUCATION---

Bachelor of Engineering   **Coimbatore, India**
PSG College of Technology, Computer Science Engineering | CGPA : 8.33   May 2020

EXPERIENCE---

1. Prototype Fast Breeder Reactor   **Kalpakkam, India**
Networking and Communication Systems Intern | Advisor: Mr. Narasimhan   Summer 2019
- Learned about various implementation methods of data networking and its monitoring, Gateways, Servers and Control room simulation in a nuclear power plant.
- Worked in development of a more efficient PLC based safety critical software for nuclear power plants.

2. Walinns Analytics,   **Coimbatore, India**
Mobile App Development Intern | Advisor: Ms. Subhiksha   Spring 2019
- Helped develop an android application to manipulate and visualize real time tracking data of various apps which include features such as daily active users, user retention rate and many more.
- Developed a simple chatbot module for the mobile app using IBM Watson APIs which can be extended to a self-learning bot.
- Successfully tested the prototype against a custom-built Notes android app so that the final product can be used across various other mobile android and iOS apps.

SELECT PROJECTS--

1. Tamil Language Text Recognition and Conversion to Speech for Visually Impaired (In Progress)
PSG College of Technology, Department of Computer Science | Advisor: Dr. Suriya S   Fall 2019
- Leading a team of 4 in exploring and developing an enhanced computer vision model for recognition of Tamil text patterns whose results can be used as input for a text to speech conversion module.
- Collected a new dataset with 300 images for each of the 247 Tamil characters, pre-processed the dataset and trained a Convolutional Neural Network model to recognize the characters with a training accuracy of 89% and test accuracy of 87%.
- Development of Tacotron and WaveNet based end to end fully text to speech synthesis in progress.

2. AI Bot for Gomoku Game | Lead a team of 4
PSG College of Technology, Department of Computer Science   Fall 2019
- Developed an AI Bot to play Gomoku(connect 5) in python using Minimax algorithm with alpha-beta pruning and Intelligence coefficients. Code available on GitHub.

3. Sign Language Detection using TensorFlow | Hobby Project
PSG College of Technology, Department of Computer Science   Spring 2019
- Developed a system using OpenCV and TensorFlow. A Convolutional Neural Network model that can detect sign language English alphabets. Hand signs are detected using a webcam.
- The model was successfully trained using alphabet dataset from Kaggle and achieved a test accuracy of 93%. Code available on GitHub.

4. CSEA Hackathon Website | CSEA Hackathon Team Leader and Host
PSG College of Technology, Computer Science Engineering Association   Spring 2019
- Single-handedly developed and hosted a Responsive Website for the inter department Hackathon with 504-page views and 231 team registrations under 24 hrs. Link: cseahack.github.io

PUBLICATION--

S. Suriya, M. Rahul Kumar, **"*Solving Travelling Salesman Problem using an Enhanced Ant Colony Algorithm*"**, International Journal of Computer Sciences and Engineering, Vol.7, Issue.7, pp.214-222, 2019.

SKILLS---

Programming and WebDev Languages: C++, Java, Python, C, HTML, CSS, php
Tools and Packages: Android Studio, NumPy, pandas, matplotlib, OpenCV, TensorFlow.
Operating systems: Ubuntu 16.04.4, Kali Linux 2018.2, Windows 10