ARJUN **RAVIKUMAR**

+1-585-470-3227 | arjunr007@gmail.com | ar4038@rit.edu | https://arjunravikumar.github.io/ | linkedin.com/in/ravikumararjun

EDUCATION

Rochester Institute of Technology *Rochester, NY, USA*
Master of Science in Computer Science *August 2019 - December 2021 (Expected)*
Current CGPA: **3.96 / 4.0**

Mahatma Gandhi University *Kerala, India*
Bachelor of Technology in Computer Science and Engineering *August 2011 - June 2015*

WORK EXPERIENCE

Software Engineer Intern - Charging at Rivian Automotive LLC, Palo Alto, CA *June 2021 - August 2021*
- Developed a vehicle simulator to simulate the real time charging status of the vehicle during a charging session on the vehicle dashboard.
- Integrated the vehicle simulator to Open Charge Point Protocol (OCPP) charger simulator using Java, Node.js and Python.
- Researched, designed and developed an OCPP server on AWS IoT using API Gateway, AWS Lambda and DynamoDB.
- Implemented unit tests and optimised Horizontal Pod Autoscaler on multiple microservices part of the Rivian's charging platform.

Graduate Assistant - System Administrator at Rochester Institute Of Technology, Rochester, NY *January 2020 - December 2020*
- Troubleshot and resolved issues related to systems, servers and user accounts for over 1000 faculty and students.
- Implemented analytics and monitoring tool (Grafana, Prometheus) for 157 machines part of the Computer Science department of RIT.
- Designed and implemented load balancer servers (HAProxy) across 157 machines part of the Computer Science department of RIT.

Game Programmer - R&D at Ruby Seven Studios Inc., Kerala, India *May 2017 - July 2018*
- Reduced the production time by 80% by developing multiple applications for art tasks using Python, JSX (Adobe Photoshop).
- Managed a team of 3 to develop the Multi-Strike Poker game on Facebook Instant Games platform.

Junior Game Programmer at Ruby Seven Studios Inc., Kerala, India *June 2015 - May 2017*
- Developed TropWorld Casino, Lucky North Casino, Bestbet Casino in a team of 5 using ActionScript.
- Developed 25 slot machines, a common purchase engine for all games and integrated multiple external Ad frameworks.
- Reduced the load time of games by 75% by restructuring the loading process. Converted existing Flash games to HTML5 and JavaScript.

SKILLS

- Programming Languages: Python, Java.
- Big Data and Machine Learning: MySQL, MongoDB, DynamoDB, Python (NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, PyTorch), Computer Vision, Convolutional Neural Network, Deep Learning, Supervised Learning, Unsupervised Learning, SQL, NoSQL.
- Other: Front-End Development, Back-End Development, Full Stack Development, Gradle, DevOps, AWS, Terraform, Scrum, Kanban, Agile, IoT.

PROJECTS

Object Detection and Visual Tracking on a Corobot System using a Remote Robot Brain (Python) *August 2021 - Present*
- Creating a two part autonomous corobot system consisting of a mobile component powered by a low power SoC and a remote server.
- The remote server controls the corobot to track an object using the intelligence gained from the real time corobot camera footage.

Fake News Prediction with Keywords Identification (Python) *February - May 2021*
- Created a website to predict real and fake news using the RoBERTa model. Designed and implemented a novel method of highlighting the most important words in the news which influenced the prediction of the model along with the authenticity of the news.

Mask-Up (Python) *March - April 2021*
- Designed and implemented cloud based application on “Wegaman’s Customer Line” real time footage from youtube using AWS technologies like EC2, Lambda, Amplify, CloudFormation, S3, DynamoDB, SNS.
- System detects individuals who haven’t worn masks properly and reports them to the concerned stakeholders. Also created an easy to understand front-end website for viewing real time footage with color coded annotations of their mask status around all individuals.

GPS Data Visualization, Turn and Stop Sign Prediction (Python) *October - November 2020*
- Cleaned the raw data and reduced the file size to 8% of the original GPS data file received from an Arduino device.
- Utilized python to implement an unsupervised learning method to find out the number of stop signs, left turns and right turns in and around RIT.

Handwriting Prediction (Python) *October - November 2020*
- Designed and developed a supervised learning method to predict handwritten digits from MNIST database with a test accuracy or more than 92%. (60,000 - train dataset; 10,000 validation dataset).

Language Classifier (Python) *March - April 2020*
- Utilized python to implement multiple supervised learning techniques to predict the language of given text based on a set of features with accuracy of more than 98% (5,100 lines - train dataset; 1000 lines validation dataset).

Adaptive Profile Changer Android Application (Java) *July - December 2014*
- Designed and developed an android application that changes the sound profile of the mobile device according to the current GPS location.