

# ARJUN RAVIKUMAR

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## EDUCATION

### Rochester Institute of Technology

Master of Science in Computer Science  
Current CGPA: **3.96 / 4.0**

Rochester, NY, USA

August 2019 - December 2021 (Expected)

### Mahatma Gandhi University

Bachelor of Technology in Computer Science and Engineering

Kerala, India

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

- Troubleshoot 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

### 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.