

# KUNAL MEHROTRA

## Software Engineer

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## EXPERIENCE

### Systems Engineer

#### TCS Digital

📅 October 2020 – Ongoing 📍 Mumbai, India

- Used Frameworks like Angular and java Spring boot for web Development.

### Full Stack Engineer

#### Acme In Tech

📅 Apr 2020 – Sep 2020 📍 Lucknow, India

- Created a Marketplace E-commerce platform.
- Worked on technologies like Wordpress, Bootstrap, MySQL, PHP, Laravel, jQuery.
- Worked on Amazon's EC2 instances, auto scaling and Load Balancers.

### Research Assistant

#### BARC-BRNS SRM ML Lab

📅 Jan 2019 – May 2020 📍 Chennai, India

- Created X-ray baggage scanning application by using Convolutional neural network based on binary classifier.
- Deployed these models as Flask app in Pynq Z1 and Nvidia Jetson Nano edge boards.

### Student Campus Ambassador

#### Bolt IoT

📅 Feb 2019 – Apr 2019 📍 Chennai, India

- During this internship, the tasks undertaken given to me were related to popularising the concepts of Internet of Things(IoT) and Machine Learning(ML), brand awareness and business development of the Bolt IoT and ML online video training.

### AI Intern

#### Wipro Ltd. Gurgaon

📅 Jun 2018 – Jul 2018 📍 Gurgaon, India

- I worked on an email classifier system to be used by the employees of the company and their voice recognition.
- The services used were natural language processing present in Microsoft's Azure machine learning services.

### On Board Computer Systems SDE

#### SRMSAT 2.0 Satellite Research Lab

📅 Sep 2016 – Jan 2019 📍 Chennai, India

- As a part of SRM's satellite program funded by the government, our primary objective of this mission is to correlate the different subsystems present in the cube satellite.

## EDUCATION

B.Tech in Computer Science and Engineering - 86.72%

#### SRM IST Chennai

📅 July 2016 – June 2020

ISC (12th - 92%) and ICSE (10th - 95%)

#### Seth Anandram Jaipuria School

📅 March 2004 – March 2016

## PROJECTS

### Pulse

- A scripting language for optimized implementation and deployment of deep learning (and AI in general) algorithms).

### SRM Brain

- A webapp that provides production ready APIs for several Deep Learning (and Machine Learning) tasks along with datasets and tools to clean data.

### SAVE.AI

- SAVE.AI is a platform that allows users to control cyber-bullying on social platforms like Twitter, Facebook.

### Arogya

- A fitness application (Android) that can provide information about calorific value of food from its image using Convolutional Neural Network.

### POWER IN YOUR HANDS

- We created a common platform for them to buy and sell raw or manufactured products. They could create and maintain their profiles and socialize with their fellow people.

### Drishti

- A web application for early detection of malaria using Deep Neural Networks.

### Vastu Kosh

- Vastu kosh is an innovative storage locker service. We created a mobile app especially for university students so that they can list the items they want to get stored.

### Weather Scraper

- In which the Onboard Computer Systems work as the centre which links all the other subsystems with each other taking into consideration the payloads and their requirements.

## PUBLICATIONS

### Journal Articles

- Mehrotra, Kunal, Siddhartha Dhar Choudhury, and D Vanusha (2020). "Imageem: Pre-Trained Encoded Vector Embeddings for Image Modelling". In: *International Journal of Innovative Technology and Exploring Engineering (IJITEE)* 9 (7).
- Choudhury, Siddhartha Dhar, Kunal Mehrotra, Shashank Pandey, Rajeev Sukumaran, and Christhu Raj M R (2019). "Reducing Regression Time Using Nth Absolute Root Mean Error". In: *International Journal of Innovative Technology and Exploring Engineering*, 8 (12).
- Choudhury, Siddhartha Dhar, Kunal Mehrotra, Christhu Raj M R, and Rajeev Sukumaran (2019). "An Efficient Neural Network Model by Weight Roll Algorithm". In: *International Journal of Recent Technology and Engineering*, 8 (4).
- Mehrotra, Kunal, Siddhartha Dhar Choudhury, Shashank Pandey, Christhu Raj M R, and Rajeev Sukumaran (2019). "Optimization of neural networks using Deep Genetic Network Algorithm". In: *International Journal of Engineering and Advanced Technology* 9 (1).
- R, Christhu Raj M, Rajeev Sukumaran, Kunal Mehrotra, and Siddhartha Dhar Choudhury (2019). "Stochastic Network Calculus for Loss Analysis and its effects of fading in acoustic networks for Underwater wireless communication"," in: *Journal of Information and Optimization Sciences, Taylor and Francis Publisher*.

## AWARDS

- Gold Medal for Best Research Paper in Computer Science at SRM Research Day 2019 for my paper titled - "Deep Genetic Network".
- First Prize in Technow, Department of Physics and Nanotechnology, SRM IST. Presented and demonstrated the project entitled - Smart Stick(Best project in Physics).
- Intel® Edge AI Scholarship Foundation Course (Udacity - Intel)
- Scholarship Udacity-Facebook Scholar (Private and Secure AI)

- Scraping the weather information of different countries.

### NumPP

- C++ port to Python's numerical computation package NumPy.

### BARADX

- Satellite tracking dashboard used to plot the latitude-longitude in the Maps API GMaps, OpenStreetMap, BingMaps and display gauges and bars.

## PROGRAMMING LANGUAGES & TECHNOLOGIES

**Languages:** C C++ Python Java  
C HTML5 CSS3 JavaScript PHP  
Flutter Kotlin

**Frameworks:** Flask Django Keras  
TensorFlow PyTorch Spring React.js  
Node.js Bootstrap Materialize jQuery

**Databases:** SQL DynamoDB MongoDB