Arush Sharma
B. Tech CSE, VIT Chennai

## Education

| Year | Degree | Institute | Percentage |
|---|---|---|---|
| **2016-Present** | B.Tech CSE | VIT Chennai | CGPA=8.59 |
| **2015** | Class XII CBSE | Army Public School, Yol Cantt | 89.60% |
| **2013** | Class X CBSE | Army Public School, Yol Cantt | CGPA =9.4 |

## Interests

Software Development, Machine Learning, Image Processing, Computer Vision

## Computer Skills

- Programming Languages: C++/C, Python, SQL, CSS/HTML
- Software Packages/Libraries: OpenCV, R Studio, MySQL, Tableau, XAMPP

## Work Experience

**Center for Development of Advanced Computing (CDAC), Pune** June-2018-July-2018

- Worked on a deep learning and computer vision project which involved extracting foreground from a video.
- Implemented an image processing based approach for the project in OpenCV.
- Developed a 12-Layer Deep Convolutional Neural Network (CNN) for the project in TensorFlow.
- Researched further into incorporating pre-trained models like ResNet and VGG into the model (transfer learning).

## Projects

**Stock Analysis on a Hadoop Multi-Node Cluster** Winter, 2019

- Developed a multi-node Hadoop cluster that stored over 7000 US Stocks on it.
- Consisted of LSTM Neural Network and Technical Indicators written in Python to predict and analyze stock prices.

**Advanced Driver Assistant System** Fall,2018

- Developed a driver assistant system in Python which authorized drivers based on facial recognition.
- The system alerted the driver of drowsiness and distraction and detected road signs and pedestrians.
- Created a voice command based music player in Python.

**Analysis of Indian News Headlines** Winter, 2017

- Analyzed over 1 million Indian news headlines and did sentimental analysis on it using the NLTK NLP library.
- Visualized the data using Tableau and R and was able to draw out interesting inferences.

**Personal Health Assistant** Fall, 2017

- Developed a website that diagnosed probable diseases of a patient based on symptoms entered.
- The website could diagnose over 50 diseases, and specialist doctors were suggested based on disease.

**RFID based Toll Collection System** Winter, 2016

- Developed a system that used RFID to collect the toll tax of a car, and maintained car owner details.
- The hardware consisted of Arduino/RFID Sensor, front-end was written in Java, and the database used was MySQL.

## Achievements / Certifications / Extracurricular Activities

- Won 2nd Prize in Code Sense Machine Learning and Signal Processing Hackathon Organized by VIThink.
- Received Letter of Recommendation (LOR) based on my work as an intern in CDAC.
- Researched on AI Accelerators like Google TPU, Shakti Processor and designed a novel RISC-V based AI Accelerator.
- Researched on finding a correlation between Self-Efficacy and Time Management among undergraduate students.
- Certificate for Advanced C++ provided by Udemy.
- Certificate for completing training for C, Advanced C++, Python provided by IIT Bombay.
- Attended various workshops in the field of data science and machine learning.
- Coordinator for activities in Music Club and member of the Design Team in the Trekking Club.
- Gave a talk about the concept “A phone cover to increase storage” in IEEE VIT Chennai Student Chapter.