Aviral Agrawal

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EDUCATION

BITS PILANI
B.E.(Hons.) Computer Science
Expected Graduation Jul, 2020 | Pilani, India
CGPA: 9.04/10
(After the third year)

ASN SR. SEC. SCHOOL
Standard XII
Grad. May 2016| New Delhi, India
Percentage: 95.2%

AMITY INT'L SCHOOL
Standard X
Grad. May 2014| Noida, India
CGPA: 10/10

COURSEWORK

Machine Learning • Data Mining • Data Structures and Algorithms • Object Oriented Programming • Database Systems • Operating System • Computer Networks • Compiler Construction • Principles of Programming Languages

SKILLS

TensorFlow • Keras • Neural Networks • Java • C • Python • R
Familiar:
Assembly • Android • MySQL

SCHOLARSHIPS

SCHOLARSHIP AMERICA
2017 - 2019
Based on performance ranging from academics to extra-curricular activities.

KISHORE VAIGYANIK PROTSAHAN YOJANA
2014
Awarded by the GOVERNMENT OF INDIA for my Research aptitude and scientific thought process.

AWARDS

University Merit Scholarship | 2016 • Certificate of Merit | 2016 • Certificate of Merit | 2014

EXPERIENCE

SAMSUNG RESEARCH INSTITUTE | Research Student Trainee
May 2019 – Jul 2019 | Bangalore, India

- Employed Deep Learning to solve a novel Computer Vision problem
- Devised a hybrid pipeline for providing an end to end solution to AI Based Multi Camera Problem which seeks to generate an enhanced resolution image as output using images, captured from multiple lenses of varied focal lengths and other parameters, as input.
- Collected the entire dataset required and performed adequate data-preprocessing as the first leg of the piepline.
- Researched and created the entire network for building the solution using TensorFlow.

MAPMYINDIA | Research Intern
May 2018 – Jul 2018 | New Delhi, India

- Devised a new Database schema for the company's Navigation and tracking data dump to significantly reduce the computation time taken in user commute time prediction purposes.
- Researched on new methodologies for approaching the missing value problem in the above data. Devised a predictive algorithm for intelligent imputation of the above mentioned missing values using a Machine Learning based approach.

PROJECTS

REAL TIME IDENTITY DETECTION SYSTEM
Aug 2019 – Present | BITS Pilani

Devise a system to identify a person at a certain location that can be effectively installed at required entrance points. This system should be able to log the details of the passerby in real time. This has the potential of automating many systems. One of the goals would also be to surpass the state-of-the-art.

QUERYING FACIAL IMAGES USING DEEP LEARNING
Mar 2019 – Apr 2019 | BITS Pilani

Employed Deep Learning to query a set of suspects' facial images in the database to find the people who best match a given description by the user.

COMPILER CONSTRUCTION
Jan 2019 – May 2019 | BITS Pilani

Designed a compiler for an artificial C-like language from scratch, implementing all the necessary structures to output a final executable code.

FULLY CONVOLUTIONAL NETWORKS FOR ACTION RECOGNITION
Aug 2018 – Dec 2018 | CEERI Pilani, Govt. of India Reseach Institute

The project aims at designing a model for accurately determining action in videos. The project is then used to identify a particular action class in surveillance videos.

HEART DISEASE PREDICTION USING DATA MINING
Aug 2018 – Dec 2018 | BITS Pilani

Several Data mining techniques were used to predict the vulnerability of a person to heart disease based on many parameters observed.