Skand Vishwanath Peri

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Education

B.Tech in Computer Science and Engineering, 2014 - 2018 Expected
Indian Institute of Technology, Ropar, India

Projects

Detecting Distracted Vehicle Drivers December, 2016 - January, 2017
Mentored by Dr C.K.Narayanan, Dept. of Computer Science, IIT Ropar
This project aims to predict if the driver is distracted while driving the vehicle. This project prominently uses Computer Vision and Convolution Neural Networks. Keras and tensorflow have been used to run the model. An accuracy of about 99.87% has been obtained on the test data set..

E-Learning with Fuzzy Concepts Present
Mentored by Dr Puneet Goyal, Dept. of Computer Science, IIT Ropar
This project aims to explore and compare MOOCs platforms, Coursera and edX using Fuzzy Analytic Hierarchy Process (AHP) and provide a criteria to judge between the two platforms.

Mathematical Visual Simulators, May, 2016 - July, 2016
Mentored by Dr C.K.Narayanan, Dept. of CS, IIT Ropar
Developed a GUI version of Singular Value Decomposition, Gradient Descent and Lagrange Multipliers depicting their geometrical interpretation. Chart.js, Plotly.js, Numeric.js and Algebra.js libraries were used to develop the tool.

Android Application for RNA Logistics, Noida, India June, 2016 - July, 2016
Built an android application for real time tracking of trucks. Developed the driver end application and used Google Maps API for navigation and worked with JSON to recieve requests from server end.

Database Storage of data received from Sensors Dec, 2015
Mentored by Dr C.K.Narayanan, Dept. of CS, IIT Ropar
This project aims to receive Data from sensors via Socket Programming and store it in MySQL Database which is further used as a training dataset for machine learning algorithm. This was implemented with the help of Queue data structure and Java Database Connectivity (JDBC) and no loss in data was ensured.

Technical Skills

Research Interests - Machine Learning, Artificial Intelligence, Neural Networks.
Languages - C, Python, Java, C++, PHP, Perl.
Tools/Frameworks - MySQL, SQLite, OpenGL, OpenCV, Android.

Other Projects

1. **Finding Quality of Life Index** Feb, 2016
Used Fuzzy Relation Database in order to find the Quality of life index of a city. Various factors that would affect the life index were found and an algorithm in order to consider the fuzziness involved in the factors and compute the index was developed.
2. **Domain Specific Language** Mar, 2016
Developed a DSL for Music Domain that simplifies cueing, equalization and audio-mixing, beat-matching, scratching and beat juggling. Developed syntax and grammar for the language and also included few libraries.
3. **Text Compression** : Used Huffman encoding and decoding in order to compress and decompress text files. Heap based priority queue and hash tables were used and implemented with a compression ratio of about 0.76.

Scores, Achievements, Scholarships

1. Current Head of Coding Club, IIT Ropar.
2. CGPA of **7.75**/10 (Jul 2016)
3. City Head of BloodConnect (NGO) from 2015 to 2016 January.
4. Member of Team Kshitij (Annual Magazine of IIT Ropar) from 2014 to 2015 June.
5. Secured AIR 2084 in IIT JEE 2014 (among the top 0.5% students).
6. Selected for prestigious *Kishore Vaigyanik Protsahan Yojana* Fellowship (among top 2% of the students).
7. Intermediate/+2 (Board of Intermediate Education, Andhra Pradesh): 96.7 percent.
8. Matriculation (All India Secondary School Examination): CGPA 10/10.