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Education

Delhi Technological University(Formerely DCE)

B.Tech. IN MATHEMATICS AND COMPUTING ENGINEERING

New Delhi, India

Aug. 2013 - PRESENT

North Delhi Public School

New Delhi, India

AISSCE (ALL INDIA SENIOR SCHOOL CERTIFICATE EXAMINATION)

Apr. 2011- May. 2013

Skills_

Programming Python, C++, C, Java, MySQL, JavaScript, Shell Scripting, Arduino, MATLAB, ŁTEX, HTML

Frameworks & Libraries Django, Flask, Theano, OpenCV, Keras, TensorFlow, PyBrain, Numpy, Scipy, Play Framework, OpenGL

Familiar C#, Node.js, Android, MongoDB, PostgreSQL, Unity3D, Lua, Apache Spark, Ruby

Experience ____

Evolutionary Computing and Research Lab, DTU

New Delhi, India

Undergraduate Researcher

Sept. 2015 - PRESENT

- · Studied various evolutionary optimization algorithms and their implementation on multi-dimensional objective functions.
- Developed a robust modification of an algorithms for global optimizations in multi-dimensional search space.

Codementor New Delhi, India

MENTOR

Dec. 2015 - Present

- · Expert Mentor on Codementor for help in Python, Machine Learning, Django, and general programming.
- Teaching people around the world and helping the developer community to grow.

Greplr New Delhi, India

CO-FOUNDER & FULL STACK DEVELOPER

May. 2015 - PRESENT

- Developed a hyper-local discovery platform and service aggregation application with a scalable architecture.
- Exposed REST APIs to support android application using Flask(Python Framework) and Parse for Database backend and analytics.

Publications

Modification to an evolutionary optimization algorithm (Under Review)

Research Publication

Undergraduate Research Student

Oct. 2015 - Mar. 2016

- · Modified an evolutionary optimization algorithm for better accuracy and performance for various objective funtions.
- Achieved promising results on test functions as well as multi-dimensional application problems.
- Paper under review at IEEE Transaction on Evolutionary Computing (TEVC).

Projects _

Tracking using multi-camera environment

New Delhi, India

MACHINE LEARNING, COMPUTER VISION, DATABASE

Mar. 2016

- Designed a tracking interface using multiple cameras for face detection and recognition from database to know trajectory followed
- Built for surveillance tasks at public places. Prototype was presented at Code for India hackathon, at Rashtrapati Bhawan, India

RNN and LSTM based Text Generation

New Delhi, India

MACHINE LEARNING, NATURAL LANGUAGE

Nov. 2015 - Dec. 2015

- Built Neural Network model based on RNNs and LSTMs to understand a given text corpus and form a probabilistic language model.
- · Written in Python using Keras and Theano Libraries. Deployed on a VPS with logging to monitor progress.

Food Requirement Simulation and Prediction

New Delhi, India

Data Science, Server Oct. 2015

- Developed a web dashboard to display data and predictions for food consumption and wastage for the NGO Akshaya Patra.
- Exposed APIs for data and Predictions using Django. The prototype won the Grand Prize award at CodeForIndia 2015 Hackathon.

Genetic Evolution in Game Playing Bots

New Delhi, India

EVOLUTIONARY ALGORITHMS, GAME THEORY, NEURAL NETWORKS

- Sept. 2015 Oct. 2015
- Created a Genetic Evolution based Tic-Tac-Toe playing bot which evolves on the principle of natural selection.
- Built Using Python and Numpy library. Learned about evolutionary algorithms and role of genetic programming in optimizations.

Autonomous Robot Navigation System Using Kinect

New Delhi, India

COMPUTER VISION, EMBEDDED SYSTEMS

Mar. 2015 - May 2015

- · Built an autonomous robot and designed it's obstacle avoidance and navigation system using OpenCV Python library.
- Analyzed performance on various development boards (Raspberry Pi, BeagleBone Black etc.) by running and optimizing the scripts.
- Used Depth maps and pixel intensity calibrations to compute distance of multiple obstacles and calculate a feasible path.

Honors & Awards

Oct. 2015 Grand Prize Winner , Code For India Hackathon	New Delhi, India
July 2015 Grand Prize Winner, HackIndia 2015	Bangalore, India
Apr. 2015 1st in Track , PolicyHacks by EPoD, Harvard University	New Delhi, India
Mar. 2015 3rd Position , 2015 by 91SpringBoards and IBM Bluemix	New Delhi, India
Mar. 2015 Special Mention , Byldathon at IIIT Delhi	New Delhi, India
Oct. 2013 Best Student Award, The Times of India(TOI)	New Delhi, India
Aug. 2010 2nd in State , National Science Talent Search Examination	New Delhi, India