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Nitin Choudhary

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Education

2015-2020	Int. MSc in Mathematics and Computing Indian Institute of Technology, Kharagpur	CGPA : 8.33
2015	Intermediate in CBSE, Central Academy, Kota	96.2 %
2013	Matriculation in ICSE, Saint Francis School, Deoghar	97.2 %

Technical Skills

Programming	Proficient in Python, C, C++ and Java ; competent in Javascript, Lua and Android.
Libraries / Frameworks	ML/NN: scikit-learn, Tensorflow, Torch, OpenCV Others: numpy, scipy, pandas, matplotib, django, flask
Systems / Platforms	Git, Linux
Markup / Templating	HTML, CSS, LaTex

Academic Projects

Feb - Apr 2017 | GPA Predictor using Machine Learning models and neural networks — Under Prof. S. K. Barai

- Created an institute-level GPA predictor for a student, which would take his previous GPA's as input, and predict his GPA's in the upcoming semesters
- Uses last 10 years of grades for over 50 students in each department as training data, so as to identify the difficulty level of each semester.

Aug 2017 Ongoing | Utilising Social Media for Disaster relief managment — Under Prof. Saptarshi Saha

- Treating people as social sensors and utlizing their social intelligence at a disaster site, by extracting the tweets and facebook posts made, in relation to a particular disaster.
- Create a post disaster management system, that would show the need and avalaibility tweets on a map based interface, so as to easily connect NGOs, volunteers and the victims to appropriate places, in real time.
- Use NLP algorithms to extract only the related tweets and then apply a deep learning model to classify between the 'need' tweets and the 'availability' tweets.

Aug 2017 Ongoing | Sanskrit text segmentation using NLP and neural networks — Under Prof. Pawan Goyal

- Currently using seq2seq model approach for word segmentation and machine translation.
- Will use more complex NLP algorithms and deep learning approach to achieve the task.

Experience

May 2017 | Machine Learning Intern — Dewinter Opticals, New Delhi

- Worked on integrating automatic detection of graphite flakes in MaterialPlus and WeldCheck.
- Was solely responsible for building a Convolutional Neural Networks model, to identify between 5 different types of graphite flakes present in grey cast iron.
- Used both Tensorflow and Torch as independent platforms to implement the neural network problem.

May - Aug 2017 | Developer at Google Summer of Code — SunPy under OpenAstronomy

- Wrote a full-fledged high-level JSOC Client, using drms package as its backend, to download astronomical data from JSOC servers.
- Wrote a full test-suite to cover the drms package, using pytest and different mock testing packages.

Jan 2017 Ongoing | Software Developer Head — Kharagpur Open Source Society

- Conducted Kharagpur Winter of Code (KWoC), to promote open-source development in and around campus, which brought over 900+ registrations, across more than 25 colleges.
- Worked as a full stack developer in building the website of KWoC, using Flask as backend, and Jekyll as the frontend.
- Mentored over 50 students, in projects varying in Python and Android.

Coursework

(T)heory and (L)aboratory

- Programming and Data Structures (T/L)
- Discrete Mathematics
- Design and Analysis of Algorithms (T/L)
- Probability and Statistics
- Soft Computing Tools in Engineering
- Object Oriented Software Design* (T/L)
- Linear Algebra*
- Computer Organisation and Architecture*

* Currently Studying

Personal Projects

Dec 2016 | Scarner's Dice — Android

- Made a basic android 2-player game that works on random dice throwing. The code can be found here

Apr 2016 | Birthday Bot — Python

- Built a automatic bot, that likes and comments on all your birthday wishes.
- Uses selenium to automate the broswer to acheive the task. The code can be found here