SHASHANK MISHRA

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Work experience

Product Engineering Intern   05/2019 – 07/2019
Publicis Sapient, Bangalore, India

Project: Face Authentication(KYC) for Bank(Name confidential) as Proof of concept.
1. Built full stack web and mobile application using AWS cloud architecture and React(for web) ,React-Native(for mobile).
2. AWS cloud services used: (S3, DynamoDB, Rekognition, IAM, Cognito, Lambda)

Research Intern   05/2018 – 07/2018
Bharat Petroleum Corporate Limited Research and Development Centre, Greater Noida, India

Project: Syn-Gas Conversion to Syn-Crude via FTS(Fischer Tropsch Synthesis route: Material and Energy Balance

Projects

Skill Match Finder App Back-end   (Personal Project)
1. Saved Cache space for getting user content with probabilistic **bloom filter**.
2. Used Spatial data indexing of users with **M-tree** for finding nearby users with respect to querying user.
3. Implemented **disjoint set forest** which can handle **25M** interactions between **10M** users in 15 seconds in my system.
4. Implemented **infix query** suggestion automation with **Suffix Trees** which can perform **5M** automation on **470K** words in 3 secs.

Machine Learning BITS F464 (Course Project)
1. Implemented algorithm from scratch:(a.Naive Bayes Classifier b.Decision Tree c. Logistic Regression)
2. Implemented **ensemble models** (a.Bagging-Random Forest b.Boosting-AdaBoost for Multi-class Classification c. Stacking)

Graphs and Networks Math F243 (Course Project)
1. Understanding the Peterson graph and its properties.
2. Cycle double cover conjecture
3. DFS based algorithm for find articulation points

Extraction of road network from satellite aerial image(Personal Project)
1. Implemented MIT roadtracer algorithm (an iterative search process guided by a CNN-based decision function) in Pytorch (July-2019 -present)

Education

Birla Institute of Technology & Science, Goa, India   07/2016 – present
1. Bachelor of Engineering in Chemical Engineering
2. CGPA (7.31/10.0)

Class 12, Kanpur, India   05/2014 – 05/2015
1. PCM+ Computer Science
2. Board ISC: CGPA (9.3/10)

Class 10 , Kanpur, India   05/2012 – 05/2013
1. General
2. Board: ICSE: CGPA:(9.28/10.0)

Competitive Coding Profile

Solved more than 800 problems across all platform
1. **Codechef**: (Rating 1924 (4 star) Country Rank: 3079)
2. **Codeforces**: (Rating 1618 Country Rank : 947)

Techgig Code Gladiator 2019:
Semifinalist among 268331 participant
Google Code Jam 2019:
Round 2 : India Rank 42 World rank 2443
Facebook Hacker Cup 2018
Round 1: World Rank (1253/7131)

Skills

Programming languages
Java, Javascript, C++,C#,Python

Relevant Institute Courses
Machine Learning,Operation Research,Computer Programming,Graph Theory and Networks

MOOC Courses
1. Neural Networks and Deep Learning :Coursera
2. Improving Deep Neural Networks: Hyper-parameter tuning :Coursera
3. Structuring Machine Learning Projects :Coursera
4. Network Management : Nettech Pvt Ltd

Hobbies

Sketching