




SIDDHARTH PORWAL

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EDUCATIONAL QUALIFICATIONS

Year	Degree	Institution(Board)	CGPA/%
July'18 – June'22 (expected)	B.Tech, AE	Indian Institute of Technology, Kanpur	8.6/10.0
2018	ISC – XII	Sheiling House School, Kanpur (ISC)	98.25%
2016	ICSE – X	Sheiling House School, Kanpur (CISCE)	94.8%

HONORS AND ACHIEVEMENTS

- **AIR 4057**, JEE Advanced (amongst 0.2 million candidates)
- **AIR 5436**, JEE Main (amongst 1.2 million candidates)
- Qualified for the **Indian National Chemistry Olympiad (INChO)** organized by HBCSE, 2018
- **National Top 1%** in 56000 candidates, **National Standard Examination in Chemistry (NSEC)**, 2017
- Recipient of **Swaminathan and Garg Scholarship** based on overall performance, 2019
- Received **UPCST 2016-17** Scholarship award granted by the **DST, Uttar Pradesh Government**

WORK EXPERIENCE

NURSD Health

Data Science and Machine Learning Intern Jul'20 - Present

- Designed a **Nurse Scheduler** in the form of a **Linear Programming** problem, coded the LP problem using the **PuLP library** in Python
- Average time spent in scheduling nurses for the hospitals is expected to reduce from **24-48 hours** to just **6-8 hours**
- Built a service rating generator (1-5) based on nurse reviews using a neural network via **bidirectional LSTM** and **GloVe embeddings** and another via **BERT** (by Google)

CSE@IITK Summer Of Code

Sponsored by Nutanix and UPSIDC Developer Intern Jun'19-Jul'19

- Designed a web app **Get College**, for JEE aspirants to be mentored by undergraduate students
- Fabricated the **back-end** section of website using **Firebase**
- Delivered a **feedback based forum** for credible mentors with past year JEE-cutoffs database for reference

PROJECTS

Yoga Asana Recommender System

Mentor: Prof. Veena Bansal, IIT Kanpur May'20 - Present

- Designed an algorithm to **recommend top asanas** for user's ailments considering **both** an asana's benefits and **contraindications** unlike regular asana rec. sites
- Vectorized Asana details and their contraindications using **CountVectorizer** and **TF-IDFVectorizer** separately and used **cosine similarity** to filter and recommend top Asanas

Shop101 India Pvt. Ltd.

Consulting Project (ShARE Global Organization) Apr'20 - May'20

- Developed a **bench-marking framework** using **MECE Principles** to rate Shop101 against competitor apps at key performance metrics, affecting a **5 million** customer base
- Conducted a case study on the reselling landscape in India by collecting 500 data points to help the client understand user habits and preferences

RELEVANT COURSEWORK

Fundamentals of Programming (A)
Linear Algebra and ODE
c: Coursera, A: grade

Partial Differential Equations
Machine Learning (c)

Complex Analysis
Tensorflow in Practice Specialization (c)

SELF PROJECTS

NLP with Disaster tweets

Self Project Jun'20-Jul'20

- Trained a **Neural Network** using **Tensorflow** to classify disaster tweets as real or fake
- Pre-processed tweets using **stemming** and stopwords removal alongside tokenization using **TF-IDFvectorizer**
- Developed various models using **LSTMs** etc. and achieved **80.7%** (best) F-1 score using a model with **GlobalAveragePooling1D** and dropout

ConnectX

Self Project—Kaggle Jun'20-Jul'20

- Formulated an agent to play the **2 player game Connect4** (6x7 grid where the objective is to get 4 consecutive pieces on the board after any of the alternate turns of the players)
- Achieved best score of **956** and a best rank 130/710 teams
- Implemented **N-step lookahead** using **Minimax** algorithm to decide the agent's choice of action at any state of board

Quadcopter control with Reinforcement Learning

Self Project Jul'20 - Present

- Learned about **Markov Decision Processes**, **Q-Learning** and **Monte Carlo** strategies with respect to Reinforcement Learning to train a **quadcopter** to hover at a position

POSITIONS OF RESPONSIBILITY

Assistant Coordinator

Student's Placement Office, IIT Kanpur Mar'20-Present

- Coordinating the placement and internship process in a **3-tier team** for 1200 and 600 students respectively.
- Developing liaisons with more than **50 corporate teams** to ensure participation in Internship Drive.
- Spearheading a team of **50 members** responsible for coordinating the entire internship season 2020-21.

Learning Unit Manager

ShARE IIT Kanpur Jun'20-Present

- Leading a team of four members of the **Technology Learning Unit**, guiding them on individual and group consulting presentations and global case study challenges

Senior Executive

Techkriti Open School Championship Jul'19-Oct'19

- Entrusted with the conduction of TOSC, a national level 2-staged competition in the city of Kanpur

SKILLS

Programming : C, C++, Python, JavaScript
Data Science : Tensorflow, Keras, Scikit-Learn, Pandas, Numpy, SpaCy
Web : Firebase, HTML5, CSS