SUNIL NISHAD

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EDUCATION

M.S. (By Research), *Computer Science & Engineering,* 2020
Indian Institute of Technology, Kanpur

B.Tech., *Computer Science & Engineering,* 2013
Jaypee University of Engineering and Technology, Guna

SKILL SET AND INTERESTS

- **Languages :** C, C++, Python, SQL, MATLAB, Core Java and HTML
- **Platforms/Tools :** PyTorch, TensorFlow, Pandas, Scikit-Learn, Keras, Numpy, Power BI, Tableau, Git, LaTeX, Windows, Red Hat Enterprise Linux, Ubuntu
- **Others :** Mathematics, Algorithms, Data Structures, Deep Learning, Machine Learning, Neural Networks, Programming & Working in groups

CERTIFICATIONS

- **Machine Learning** from *Stanford University* on Coursera
- **Deep Learning,** a 5-course specialization from *deeplearning.ai* on **Coursera**
- **Algorithms** from *Stanford Online*
- **Chrome Extensions** from *Udemy*
- **Core Java** from *Hewlett-Packard Education Services, Kanpur*
- **Linux** from *Hewlett-Packard Education Services, Kanpur*
- **Cloud Computing** from *Cetpa Infotech Private Limited, Noida*

PUBLICATIONS

- **GraphReach: Position-Aware Graph Neural Network using Reachability Estimations** in *International Joint Conference on Artificial Intelligence (IJCAI),* 2021, Montreal, Canada
  ❖ Achieved **relative improvement** of upto **40 percent** in **ROC AUC scores,** on the task of **link prediction** and **pairwise node classification** using **node embeddings,** compared to state of the art models like **PGNN, GCN, GraphSAGE, GAT & GIN**
- **Lexical and Parser tool for CBOOP program** in *International Organization of Scientific Research Journal of Computer Engineering*, Vol. 10, Issue 6, May-Jun 2013

WORK EXPERIENCE

Deloitte USI, Gurgaon
Data Scientist 2   14 months

- Worked on **Graph Neural Networks** and **Deep Learning**
- Developed a bipartite graph using patient and diagnosis data and designed a **model** in **python** to predict the treatment patients will get using **node embeddings**
- Performed **EDA** on graph data, plotted **tSNE** and **Umap** of node embeddings for analysis

ClearTax, Bangalore
Software Engineer   4 months

- Developed an E-Invoicing API in python to generate B2C QR code

Bharat Electronics Limited – Central Research Laboratory, Ghaziabad
Project Engineer   34 months

- Worked on *Collision Resolution Server(CRS), Weapon Assignment(WA)* and *Decision Support System(DSS)* modules of **Integrated Air Command and Control System Phase-V (IACCS-V)** project
  ➢ Developed **CRS Flight Plan algorithms** that were used to detect collision of flights in **C++** language
  ➢ Used Data Distribution Services technology to interact with other modules like Threat Evaluation, Recovery, Web, Database etc.
  ➢ Modelled **WA backend algorithms** in **MATLAB** that assign weapons to neutralize the targets
  ➢ Developed **Simulator** for CRS, WA and DSS in Qt
  ➢ Documented System & Software Requirements, Software Architecture and Testing documents in IBM Doors & IBM Raphsody application

Tectura Infotech Pvt. Ltd., Noida
Associate Software Developer   6 months

- Worked on ERP software *Microsoft Dynamics Axapta 2012*

PROJECTS

Reading Comprehension Question Answering System
Introduction to Natural Language Processing │IIT Kanpur
❖ For a given passage and relevant questions, we find the most appropriate span in the passage which answers the question
❖ Used Bi-Directional attention flow based model for training

Using Hashtags for News Retrieval
Information Retrieval │IIT Kanpur
❖ Used IR models to explain Twitter hashtags via relevant external news articles for general audience to understand the Twitter trending
❖ Tweets for the hashtag are collected and converted to query which retrieves the most relevant news articles

Creating a voting platform for Student Senate election using Ethereum Blockchain
Blockchain Technology and Application │IIT Kanpur
❖ Built smart contract in solidity

Measuring psychological distance between words
Computational Cognitive Science │IIT Kanpur
❖ Built **python** code to find Normalized Google Distance between two words and compared it with human similarity values by plotting

ACHIEVEMENTS

- Qualified the **Qualification Round** of **Google Code Jam 2016, 2020, 2022** and **Facebook Hacker Cup 2019**
- **24th** rank in **Automatic Graph Representation Learning** challenge in **KDD Cup 2020** provided by *4Paradigm, ChaLearn, Stanford and Google*
- Best rating of **1802** on *HackerRank* and **1571** on *HackerEarth*
- Secured **1867th** rank in **Google Kick Start** *Round G 2019*
- Qualified for **Round 3** of **IndiaHacks 2017: Programming** challenge organized by *HackerEarth*
- Won **1 Silver** and **3 Bronze** medals in different rated contests on *HackerRank*
- Secured 53rd rank out of 4837 participants **On the plague trail: HackerEarth Machine Learning challenge** organized by *HackerEarth*
- Qualified **SnackDown Online Qualifier 2017** organized by *CodeChef and* Secured a rank of 2951 in *SnackDown Online Pre-Elimination Round*
- Secured **1st rank** in **International Informatics Olympiad** in class XII at *Delhi Public School, Kanpur*