DEEP GANDHI

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EDUCATION

Dwarkadas J. Sanghvi College of Engineering *2018 - 2022 (Expected)*
(Mumbai University) Overall GPA: 9.48/10
BE in Computer Engineering

PROFESSIONAL EXPERIENCE

JP Morgan Chase & Co. June 2021 - Aug 2021
Summer Intern *Internship*

- Worked with the ACM Team in the Investment Banking division and automated the artifact validation check for every release using Python and pandas.
- Designed a system for automation of evidence store creation for files to be attached to the SNOW ticket reducing the process time from 1.5 hours to 10 mins.

Dwarkadas J. Sanghvi College of Engineering Jan 2021 - June 2021
Undergraduate Research Assistant *Advisor: Dr.Ramchandra Mangrulkar*

- Made a project dealing with the application of Federated Learning for highly sensitive medical data.
- Worked on a research project to identify Spear Phishing using low computational NLP approaches.
- Published 2 chapters for CRC Press in the domains of Federated Learning and Natural Language Processing.

Margosatree Technologies Jan 2020 - Jan 2021
Freelance Python Developer *Part Time*

- Developed dashboard for a Syscon Automation to display dynamic data coming from the manufacturing process and providing useful insights on the same which was later used on a large scale internally within the company
- Worked on a diverse array of client and internal projects like clustering Jupyter clients and dynamic PDF report generation of every quarter using Selenium and Pandas.

Levyne Feb 2020 - May 2020
Machine Learning Engineer *Internship*

- Built the complete data analysis platform using pandas, numpy, scipy for the marketing team which performed RFM analysis on dynamic data.
- I was responsible for building a chatbot using nltk for customer interaction.
- Developed a recommendation system for the platform using fast.ai and PyTorch.

Feople Org Jan 2019 - Sept 2019
Data Analyst *Part Time*

- Acted as the tech lead and was personally responsible for the development of a recommender system and a dynamic pricing strategy of a restaurant client using fast.ai, pandas and scikit-learn.

PROJECTS

A Federated Approach to Hate Speech Detection *Guide: Zeerak Waseem*

- Ongoing research project which acts as an extension to the work done by Fortuna et al in order to identify some real world representations of the types of hate speech on different non-iid datasets.
- The further work includes simulation graphical representations of the text in the datasets used in Fortuna et al
- **Collaborators:** Zeerak Waseem, Deep Gandhi, Jash Mehta, Jay Gala

FedHealth *Guide: Prof. Lynette D'Mello*

- Final year project which uses Federated Learning to train models on highly sensitive medical data stored on patient devices on a Blockchain network.
- Using Differential Privacy to increase collaboration of datasets among hospitals and thus, identify diseases in privacy based settings.
- Using Natural Language processing and FL to identify alternatives to various prescriptions based on medical reviews.

RESEARCH & PUBLICATIONS

[1] **Deep Gandhi**, Govind Thakur, Pranit Bari, and Khushali Deulkar, "Application of Deep Learning in Cartography Using UNet and Generative Adversarial Network," in *Design of Intelligent Applications Using Machine Learning and Deep Learning Techniques*, pp. 257–271, Chapman and Hall/CRC, 2021.

[2] **Deep Gandhi**, Jash Mehta, Nemil Shah, and Dr.Ramchandra Mangrulkar, "Federated Learning for Brain Tumor Segmentation on Cloud," in *Cloud Computing Technologies for Smart Agriculture and Healthcare*, ch. 17, CRC Press (Taylor and Francis), Accepted.

[3] **Deep Gandhi***, Jash Mehta*, Naitik Rathod, and Sudhir Bagul, "Low Resource Language Processing and Opinion Mining on Hindi Text," in *The SIGNLL Conference on Computational Natural Language Learning (CoNLL)*, EMNLP 2021, Under Review.

[4] **Deep Gandhi**, Jash Mehta, and Dr.Ramchandra Mangrulkar, "Detection of Spear Phishing using Natural Language Processing," in *Cyber Security Threats and Challenges facing Human Life*, ch. 9, CRC Press (Taylor and Francis), Accepted.

[5] Jash Mehta, **Deep Gandhi**, Govind Thakur, and Pratik Kanani, "Music Genre Classification using Transfer Learning on log-based MEL Spectrogram," in *2021 5th International Conference on Computing Methodologies and Communication (ICCMC)*, pp. 1101–1107, IEEE, 2021.

TECHNICAL STRENGTHS

Programming Languages:	Python, R, Javascript, C, C++
Libraries/Frameworks:	PyTorch, fast.ai, Opacus, PySyft, Flower,Flask, FastAPI, Node.js, Express.js
Tools:	Git, Jupyter, Docker, Bash, Heroku, AWS, Azure, LaTeX
Databases:	SQL, MongoDB, Redis, Cloud Databases

CO-CURRICULAR ACTIVITIES

Teaching Assistant for an undergrad level Deep Learning Course UMLSC, supported by **Google AI Research India**

Part of **Shalizi–Stats reading group** led by Swapneel Mehta which focuses on the stats book by *Cosma Shalizi* and Bayesian Statistics taught by Fenil Doshi

Presented various paper reviews as a part of the **Unicode Research Group** and currently working on on identifying the causal effects that non-expert mentors have on the careers of mentee students in an educational institution.

Built a predictive model for automotive component part failure for a **Big4 consultancy firm** under *Dr.Kriti Srivasatava*.

ACHIEVEMENTS

Awarded Inspire Scholarship, **Top 1%** candidates in Higher Secondary Certificate (12th Grade), 2018

Runner up at *Hackscript 1.0 (March 2019)* out of 48 teams

Top 3 at *JP Morgan Chase Code for Good 2020* out of 75 teams

Top 10 at *HERE Maps' Smart Mobility Hackathon 2019*