Divyansh Singh

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EDUCATION

- **University Of Florida - Herbert Wertheim College of Engineering** — Gainesville, USA
  Master of Science - Computer Science, GPA 3.94/4 — *August 2022 - May 2024*
  Courses: *Distributed Operating System Principles, Advanced Data Structures, Natural Language Processing*

- **The LNM Institute of Information Technology** — Jaipur, India
  Bachelor of Technology - Computer Science and Engineering — *August 2018 - June 2022*
  Courses: *Operating Systems, Data Structures, Analysis Of Algorithms, Artificial Intelligence, Machine Learning, Networking, Database Management*

SKILLS SUMMARY

- **Languages:** Python, JAVA, C/C++, SQL, Bash, Javascript, CSS
- **Frameworks:** Scikit, NLTK, TensorFlow, Keras, Torch, Spark, Teradata, React, Django,MongoDB, Flask
- **Specialization:** Software Development, Data Science, Machine Learning, Business Analytics, Web Development

EXPERIENCE

- **The University of Florida** — Gainesville,FL,USA
  Research Assistant — *April 2023 - Present*
  - **Leading Research in Prof. Bonnie Dorr's Natural Language Processing lab**: Spearheading the Topic Modelling segment in Prof. Bonnie Dorr's Natural Language Processing lab for the ARLIS Information Competition Simulation initiative, leveraging clustered BERT Embeddings to identify topics across 10,000+ un-annotated documents, achieving a notable cosine similarity of 0.72 with the ground truth.
  - **Deploying open source large language models (LLMs)**: Pioneering the research and orchestrating the deployment of open-source large language models (LLMs) for advanced applications.

- **ZS** — Remote
  Decison Analytics Associate (Internship) — *January 2022 - June 2022*
  - **Raw Patient Level and Physician level Claims data**: Analyzed patient and physician-level claims data: Crafted market share reports and traced patient treatment paths using 6 Hive-sourced retail claims datasets.
  - **Physician Deciling for Promotions**: Strategically isolated and prioritized 500 high-decile physicians using comprehensive nationwide diagnosis statistics, subsequently endorsing and recommending them for promotional opportunities.
  - **Weekly Report of New Patients**: Automated Weekly Patient Reports: Designed a system to highlight new AML patients and their physicians, boosting biopsy counts by 23 percent through targeted reminders.

- **The LNM Institute of Information Technology, Jaipur** — Remote
  Research Assistant — *July 2021 - December 2021*
  - **Computer Vision based Exam Proctoring System**: Worked under Prof. Miller and developed an AI powered proctoring system for online exams using Computer Vision for over 2,000 Students.
  - **Inference System for Efficient Proctoring from Multiple Data Feeds**: Developed the Proctoring system to monitor the camera feed and audio which performed Face Authentication, Phone Detection, Spoofing, Speech to text using **Opencv, Dlib, YOLOv3, Darknet**. Also deployed multi-threading for optimized usage of cloud computing.

- **Indian Institute of Technology, Kanpur** — Remote
  Research Intern — *May 2021 - July 2021*
  - **Aggregated a dataset of about 1,250,000 samples containing hate speech.**: Meticulously extracted hate speech from Twitter and Reddit, assembling a labeled dataset from over 10,000 web pages for in-depth analysis..
  - **Built a BERT Classifier to Identify Hate Speech in Online Text Streams**: Engineered a classifier, leveraging BERT and ELECTRA encoding architectures. Optimized and integrated transformer-based models, achieving an impressive testing accuracy of 98 percent.

PROJECTS

- **JobPly:(Full Stack Development)** : Engineered JobPly, a full-stack Django app simplifying job posting and application processes. Enabling employers to list jobs seamlessly and users to apply with ease. Tech: Python, Django, Javascript, HTML, CSS

- **Reddit Chatbot: A chatbot modelled on Reddit corpus.(Natural Language Processing, Deep Learning)**: An innovative question answering chatbot trained on reddit posts and their replies (Over 1,000,000 samples) using attention based seq2seq neural networks. Tech: Python, Nltk, Tensorflow, MySql,SQLite

PUBLICATIONS

- **Polyth-Net: Classification of Polythene Bags for Garbage Segregation using Deep Learning**: Research project published at 2021 International Conference on Sustainable Energy and Future Electric Transportation - IEEE · 2021

- **Detection of Emotions in Hindi-English Code Mixed Text Data**: Research Project accepted to be Published at IEEE International Conference on Artificial Intelligence and Smart Systems - IEEE . 2022

VOLUNTEER EXPERIENCE

- **Microsoft Student Partner** — Noida, India
  Conducted official technical workshops and hackathons impacting over 3000 students. — *April 2020 - December 2021*