Vibha Masti

vibhamasti.github.io | (412) 214-2188 | vmasti@andrew.cmu.edu | linkedin.com/in/vibha-masti

EDUCATION

Carnegie Mellon University   Pittsburgh, PA
Master of Computational Data Science (MCDS)   *December 2024*
  GPA: 4.33/4.00. Coursework: Introduction to Deep Learning, Introduction to Machine Learning,
  Foundations of Computational Data Science, On-Device Machine Learning

PES University   Bangalore, India
Bachelor of Technology in Computer Science and Engineering   *May 2023*
  GPA: 9.84/10.00. Coursework: Natural Language Processing, Machine Intelligence, Data Analytics, Big Data
  Awards: Prof. CNR Rao Scholarship (top 2%), Immense Contribution Award

SKILLS

Programming Languages: Python (proficient), C/C++ (intermediate), Java (moderate), R (moderate)
Machine Learning: PyTorch, pandas, numpy, scikit-learn, HuggingFace, NLTK, Keras, TensorFlow
Cloud/Web: Azure ML, Google Cloud Platform, AWS, Git, LaTeX, Flask, FastAPI, React, Regex, MongoDB, SQL

EXPERIENCE

Apple   Bangalore, India
Software Engineering Intern   *Jan 2023 – Jun 2023*
- Collected, annotated, and cleaned up natural language descriptions of cellular issues in Apple's iOS platform
- Fine-tuned LLM using PyTorch and HuggingFace to classify data in a few-shot setting and improved multilabel classification accuracy by 30%
- Deployed model and integrated inference into team's automated analysis pipeline

Goldman Sachs   Bangalore, India
Summer Analyst   *Jun 2022 – Jul 2022*
- Designed new efficient document data models in MongoDB to store mathematical constraints, replacing old SQL data store and reducing fetch times by 85%
- Created fetch API backend with FastAPI and pydantic

Netradyne   Bangalore, India
Project Intern   *Jun 2021 – Jul 2021*
- Developed ReactJS web tool to pitch product to clients by showcasing usage statistics on interactive map
- Efficiently fetched, calculated and displayed statistics from SQL database at different levels of granularity for different geographical areas

PES University   Bangalore, India
Teaching Assistant   *Fall 2022, Spring 2023*
- Network Analysis and Mining – created graph ML coding assignments using networkx, PyTorch Geometric
- Data Analytics – created slides and assignments in R/Python on visualization, cleaning, model building

SELECT PUBLICATIONS

C3PO: A lightweight copying mechanism for translating pseudocode to code
  Presented at the Student Research Workshop, **AACL-IJCNLP 2022**

GraphCoReg: Co-training for regression on temporal graphs
  Best Student Paper, 18th International Workshop on Mining and Learning with Graphs, **ECML-PKDD 2022**

Multivariate Covid-19 forecasting with vaccinations as a factor: The case of India and USA
  Presented at the IEEE Region 10 Symposium (TENSYMP) 2022 and Workshop on Healthcare AI and COVID-19, **ICML 2022** (Track 2)

PROJECTS

Automated Film Soundtrack Generation   *PyTorch, Python*
- Generative model to output MIDI music from valence/arousal values from movie scenes

Sentiment Analysis with Streaming Spark   *Python, Spark ML, sklearn*
- Preprocessed (cleaned, tokenized) and performed sentiment analysis on streaming data (tweets)