SURYAVARDAN SURESH

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Education

New York University (Graduate School of Arts and Science)　　　　**Aug 2023 - May 2025**
MS in Computer Science (Courant)　　　　*GPA: 4.00*

Indian Institute of Information Technology (IIIT) Sri City　　　　**Aug 2019 - May 2023**
B.Tech in CSE with Honors (Transfer Learning and GANs)　　　　*GPA: 8.96*

Skills

Technical Skills: Python (Pytorch, Tensorflow, Numpy, Matplotlib, Django etc.), Matlab, Java (MERN), SQL, C/C++, HTML/CSS/JS/Bootstrap, Github

Coursework: [MS] Conceptual Gaps in Modern ML, Cloud and ML, Predictive Analytics, OS, Fundamental Algorithms, [BTech] ML, NLP, OOPS, DSA, Web Development, Adv. Engineering Mathematics, Communication Skills, DBMS etc.

Certifications: Deep Learning Specialisation, Build Better GANs, Natural Language Processing, Web Development for Everybody, Machine Learning with Python

Experience

Artificial Intelligence Institute of UofSC　　　　**Aug 2022 - Present**
Research Intern　　　　*Deep Learning, Python, Tensorflow*

- Orchestrated the development of Joint Embeddings to out-perform industry benchmarks in Image Captioning, Text-based-Image retrieval, and Image2Tweet tasks, delivering a 6% boost in BLEU score and culminating in the following paper: **IMAGINATOR: Pre-Trained Image+Text Joint Embeddings using Word-Level Grounding of Images**

Wipro AI Lab　　　　**Apr 2021 - Aug 2022**
Research Intern　　　　*Data Science, Deep Learning, Python, PyTorch*

- Led the Organizing Committee for the De-Factify workshop 🔗 at AAAI, overseeing all aspects from task formulation to data collection, cleaning, organization, annotation, analysis, baseline model creation, participants' paper review, and conference presentations.
- Delivered a compelling presentation on the Factify shared task, detailing the meticulous curation and classification process of 100,000 tweets and news articles across 5 classes based on relative entailment. More about it in (**FACTIFY: A Multi-Modal Fact Verification Dataset** @ AAAI 2022)
- Directed the enhancement of the Factify5WQA task dataset at AAAI-24, supervising the annotation of 15,000 entries to facilitate the evaluation of claim versus document comparisons according to the 5W framework.

TechCiti Software Consulting PVT LTD　　　　**Jul 2020 - Aug 2020**
ML Intern　　　　*Scikit-learn, Python, Django*

- Designed a web based Loan application and approval prediction project with a 78% accuracy, after receiving training as part of the internship. Supported the PM with data cleaning and model selection.

Projects

Honors Research - B.Tech | *Tensorflow, Matlab, Research*

- Introduced a novel GAN variation to analyze the effects of synthetic data on traditional Unsupervised Domain Adaptation algorithms; delivered enhancements on 62% of tasks outlined within current SOTA benchmarks. This work was presented at the ICONIP-22 conference, publication: (**UDA Supplemented with Generated Images** - ICONIP 2022)

Deep Learning | *Pytorch, Langchain, Tensorflow, HPC*

- Pioneered a QnA-chatbot on LENR-research data and compared performance of SOTA open-source LLMs with grid search on parameters, under the supervision of Prof. Anasse Bari and Prof. David Nagel [ongoing paper]
- Earned top 15 percentile in the Deep Learning bootcamp 🔗 conducted by DPhi; Kaggle, VarDial etc.

Metro Simulation 🔗 | *Agent-based modelling, Netlogo*

- Formulated an advanced ABM tool to simulate and evaluate metro architecture of any city, featuring excel input for routes and passenger count; Washington DC metro data study conducted to uncover optimization strategies for congestion and wait times, enhancing urban transportation planning.

Web Development | *React, Node.js, MongoDb, REST API, Docker, Django, SQL, JS, Bootstrap*

- Spearheaded the creation of ShoeBox 🔗, an e-commerce platform for shoes infused with social media elements, seamlessly integrating APIs for enhanced pagination and filtering capabilities, implementing Redux for streamlined state management, and documenting the process.
- Engineered and executed a comprehensive Donation Platform 🔗 for the sem project, encompassing Admin, Donor, and NGO modules.