DIVYA SRINIVASAN

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Education

New York University, *New York* *Expected May 2026*
Master of Science in Computer Science
Coursework: Design and Analysis of Algorithms, Machine Learning, Computational Cognitive Modeling

University of Catania, *Italy* - Thesis Work *May 2024*

Shiv Nadar University (SSN), *India* *Graduated 2024*
Bachelor of Engineering in Computer Science (CGPA: 3.34/4)
Relevant Coursework: Probability and Statistics,Operating Systems, Compilers, Artificial Intelligence, Data Science

Technical Skills/ Certifications

Programming Languages : C, C++, Python, JAVA, SQL, JavaScript, Linux

Libraries & Frameworks : MATLAB, TensorFlow, NumPy, Keras, LangChain, SciPy

Internships

Corporate Intern, Kaar Technologies (India, Chennai) *Aug 2023 – Oct 2023*

- Developed an OCR application for extracting text from multi-page resumes with varied fonts and complex layouts, using PyMuPDF, Tiktoken, and LangChain
- Integrated OpenAI GPT-3.0 for enhanced search and retrieval, improving accuracy by 25% and reducing processing time by 30%

Research Experience/ Projects

Bachelor's Thesis *Jan 2023 – May 2023*

Vehicular Driving Style Profiling Using Deep Learning Methodologies, SSN (Chennai) and University of Catania (Spain)

- Analyzed deep learning autoencoders, including Long Short-Term Memory (LSTM) and Convolutional Neural Networks (CNN), to learn temporal dependencies and unique features of user behavior
- Constructed benchmark models to create individual driving profiles, representing each driver's unique driving style, enabling assessment of similarity and irregularity between different users traversing the same path using the same vehicle
- Data was collected using OBD sensors from 10 user vehicles driven in the Catania-Syracuse highway, each with **8,000-10,000** time-stamped data samples. The Convolutional Auto-encoder achieved an average reconstruction loss of **0.197**, outperforming the LSTM Auto-encoder, which recorded a loss of **0.213**

Research Project, CLEF initiative labs *Aug 2022 – Nov 2022*

Medical Dialogue Summarization using Linear Support Vector Systems, SSN (Chennai)

- Utilized a Linear Support Vector Classification (SVC) algorithm with TF-IDF features to perform text classification on **1200** doctor-patient conversation snippets. The model achieved a training accuracy of **0.82** with a validation accuracy of **0.70**
- Implemented various preprocessing techniques and random oversampling to address class imbalance, and analyzed alternative models including CART and CNN.

Project Intern *July 2023 – Aug 2023*

Data Analysis and Deep Learning, **NUS (Singapore)**

- Applied Convolutional Neural Networks (CNN) to predict earthquake-prone zones. Created a ground motion identification program to detect near-fault non-pulse ground motions using seismic data from 500 events
- Demonstrated improvements by reducing the number of outliers by **5%** and the standard deviation of residuals by **11%**

Publications

Dhanya Krishnan, **Divya Srinivasan**, Balasubramanian V and Nagaradjane Prabagarane (Sri Sivasubramaniya Nadar College of Engineering, India); Joannes Sam Mertens (University of Catania & CNIT-National Inter-University Consortium for Telecommunications, Italy); Salvatore D. Cafiso, Laura Galluccio, Giacomo Morabito and Giuseppina Pappalardo (University of Catania, Italy), (2024), 'Driving Style Profiling using deep auto-encoders for Safety applications in Urban and Highway Scenarios', 2024 IEEE International Symposium on Measurements & Networking (M&N) http://dx.doi.org/10.1109/MN60932.2024.10615387

Dhanya Krishnan, **Divya Srinivasan** and Kavitha Srinivasan. 'SSNdhanyadivyakavitha at MEDIQA-Sum 2023: Medical Dialogue Summarization using Linear Support Vector Classification Technique'. Working Notes of the Conference and Labs of the Evaluation Forum (CLEF 2023), Thessaloniki, Greece, September 18th to 21st, 2023. Volume-3497 paper 127
https://ceur-ws.org/Vol-3497/paper-127.pdf