Supriya Manna

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Introduction

As a third-year student in Computer Science and Engineering, I am deeply passionate about understanding how society works and constantly revolves around the pool of different schools of thoughts. I have some experience in constraints programming, operations research, and optimization problems, designing and analyzing (meta)heuristics and algorithms. Currently, I am working on the explainability of black-box models in the presence of Human-in-the-loop, analyzing xAI paradigms in terms of model interoperability and trustworthiness. I aspire to work in theoretical & computational social science, complex model explainability, and Human-AI trust, and I am excited to contribute meaningfully to the development of AI models that are not only accurate but also transparent, trustworthy, and socially responsible.

Education

SRM University, AP Sept 21- Sept 25

Bachelor of Science in Computer Science and Engineering (Hons) *Current GPA: 9.02/10.00*

Coursework

Grades: comprehensive grade card here

Relevant courses with grades: Intro to Programming with C (9/10), Object-Oriented Programming with C++ (9/10), Data Structures (8/10), Design and Analysis of Algorithm (10/10), Discrete Mathematics (10/10), Formal Language and Automata Theory (10/10), Operating System (10/10), Java (10/10), Python (9/10), Single and Multi-variable Calculus (9/10), Probability and Statistics (8/10), Artificial Intelligence, DBMS, Computer Networks, Linear Algebra(all in progress)

Awards: Academic scholarship holder (3 times in a row)

Skills

Languages: C/C++, Java, Python, MATLAB, Bash, LaTeX

Tools, Libraries and Frameworks: Git/GitHub, NumPy, pandas, scikit-learn, Matplotlib, TensorFlow, LIME, SHAP, Gurobi Optimizer, Google Colab, Linux

Experience

Research Intern | *SRM University, AP under Dr. Niladri Sett* June 2023 – Aug 2023, Sept 2023 – Present

- Literature Reviews from various papers on explainable ML, Ml in public policy, Fairness in complex models
- Working on defining notation of trustworthiness in black-box models in the presence of Human-in-the-loop

Next Tech Lab | *SRM University* Nov 2021 - Jan @@@@

- Explored statistical learning, machine learning, mathematical programming, and advanced algorithm designing paradigm
- Explored problems in constraint programming, operational research, and game theory

Summer School, Yale University | *Yale Young Global Scholar - 2021* July 2021

- Worked on business analytics with Python data analytics libraries.
- Recorded a podcast on how COVID-19 affected small and mid-size businesses backed with robust data and possible solutions.

Publication Details

Under Review:

1. Revitalising the Single Batch Environment: A 'Quest' to Achieve Fairness and Efficiency

Authors: Supriya Manna, Dr. Krishna Siva Prasad Mudigonda

Preprint Available on arXiv

Forthcoming Chapter:

2. Need of AI in Modern Education: in the Eyes of Explainable AI (xAI)

Publication: "Blockchain and AI in Shaping the Modern Education System"

Publisher: CRC Press, Taylor & Francis Group, USA

Authors: Supriya Manna, Niladri Sett

Preprint Available on ResearchGate

Project

1. **Simulator for Classical Scheduling Algorithms** : ***HTML, Flask, Python | University Undertaken Project - 4th sem (May '23)***

2. **Random TSP Solver using Ant Colony Optimization** : ***Python, Metaheuristic, Colab: base implementation***

Hobbies

–Exploring Eastern Philosophies: Samkhya, Jainism, Buddism etc.

–Used to participate in competitive programming occasionally, best achievement-**Global Rank 11** (Div 3) (Handle: vputin)