

Jigyasa Kumari

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WORK EXPERIENCE

Wells Fargo

Program Associate

Hyderabad, IN

June 2023 – Present

- Conducted model maintenance, ensuring optimal performance and adherence to industry standards and regulations.
- Performed backtesting to assess model accuracy, identify risks, and recommend enhancements for performance.
- Developed and maintained interactive dashboards using Tableau, facilitating data-driven decision-making by providing visual insights to stakeholders.
- Automated control processes, improving efficiency and reducing errors within PPNR and Deposits models.

Wells Fargo

Analyst Intern

Bengaluru, IN

May 2022 - July 2022

- Served as an Analyst Intern in the Risk Modelling Group at Wells Fargo, where I worked on building explainable models using statistical techniques such as regression analysis, decision trees, and clustering.
- Conducted data analysis, developed and tested algorithms, and presented results to a team of senior analysts, resulting in a pre-placement offer (PPO) based on performance during the internship period.

PROJECTS

Exploring the theory behind Foundation Models and Financial Data.

MAGICS Lab, Northwestern University

January 2024 - Present

- Engaged in a project focused on benchmarking various regression, classification, and time-series models on limit order book data. Submitted the results of this work as an academic paper to **NeurIPS** (benchmarks and datasets track), 2024.
- Helped develop domain-specific datasets that can be used to train domain-specific foundation models by building pipelines for data acquisition, cleaning and pre-processing.

Unified ML model for diversity

EADAL, IIT Roorkee

June 2023 - August 2023

- Spearheaded the development of an innovative machine-learning model aimed at population diversity within the population of reference vector-based evolutionary algorithms.
- Contributed to the project's success by actively participating in brainstorming sessions, code reviews, and optimization strategies.

Constraint Handling in Evolutionary Algorithms

Dr Dhish Saxena, IIT Roorkee

August 2022 - May 2023

- Worked on handling constraints in multiobjective optimization problems.
- Used a graph neural network (GNN) to explore the search space and track the growth of feasible and infeasible solutions, enabling the generation of suitable solutions that satisfy constraints.
- Compared the developed algorithm with existing algorithms to evaluate its effectiveness and efficiency in handling constraints in multiobjective optimization problems.
- Contributed to the development of technical reports summarizing research findings.

IIIT Hyderabad

Research Intern

Remote, IN

September 2022 - February 2023

- Conducted research at the Language Technologies Research Center (LTRC) at IIIT Hyderabad, working under the supervision of Dr Chiranjeevi Yarra.
- Contributed to the development of end-to-end models focused on generating text summaries from speech by collecting relevant data, and developing and testing models.

AI Assisted Optimization

Dr Dhish Saxena, IIT Roorkee

January 2022 - April 2022

- Worked on solving multi-objective optimization problems using evolutionary algorithms under the supervision of Dr Dhish Saxena at IIT Roorkee.
- Used machine learning to enhance the solutions generated using the NSGA-III algorithm.
- Compared several machine learning algorithms to identify the most effective and efficient approach for generating solutions in multi-objective optimization problems.

NTU Singapore

Research Intern

Remote, SG

January 2022 - June 2022

- Selected as an NTU India Connect intern during Spring 2022.
- Worked as a Research Intern within the Mechanical and Aerospace Engineering Department, operating under the guidance of Professor Ming Xie.
- Developed an advanced image segmentation model, employing Restricted Coulomb Energy (RCE) networks to delineate regions of colour with precision and efficiency.

King Mongkut's University of Technology Thonburi (KMUTT)

IC2 ESROP Intern

Remote, TH

June 2021 - August 2021

- Served as an IC2 ESROP Intern at the Innovative Cognitive Computing Centre (IC2) at King Mongkut's University of Technology Thonburi (KMUTT), where I worked under the supervision of Professor Jonathan Chan.
- Developed an image detection and classification model to identify areas of opacity in chest X-rays and classify them into different instances of disease.
- Conducted extensive research on deep learning techniques and medical image analysis.
- Collaborated with a team of interns to improve the efficiency and accuracy of the model through parameter tuning.

EDUCATION

Indian Institute of Technology

B.Tech in Mechanical Engineering (CGPA: 8.836)

Roorkee

2019 – 2023

CMR National PU College

XII (Percentage: 93.0%)

Bengaluru

2017 – 2019

Ryan International School

X (Percentage: 96.0%)

Bengaluru

2015 – 2017

AWARDS / SCHOLARSHIPS / ACADEMIC ACHIEVEMENTS

- Awarded the **National Talent Search Examination (NTSE)** scholarship, recognizing outstanding academic achievement and potential.
- Awarded a **bronze medal** in the SIIM-FISABIO-RSNA Covid-19 challenge on Kaggle, placing in the top 10% of submissions and showcasing skills in data analysis and machine learning.
- Qualified for the grand finale in the Infosys Summer of Ideas ideathon in the AI track, demonstrating proficiency in designing innovative solutions to real-world challenges.
- Invited to attend the Goldman Sachs Women Possibilities Summit: Finance, based on a standout case study submission highlighting strategic thinking and problem-solving abilities.
- Scored 75.33/100 in GATE DA 2024 (**AIR 27**).
- Scored **115/120 in TOEFL** (30 reading + 29 listening + 28 speaking + 28 writing).

SKILLS & INTERESTS

Skills: HTML, C++, Python, TensorFlow, PyTorch

Interests: Optimization and Control, Probability, Artificial Intelligence, Machine Learning, Neural and Evolutionary Computing.