



UTPALRAJ KEMPRAI

Profile

As an aspiring Data Scientist, I have a solid foundation in Mathematics, Statistics, and Machine Learning, enabling me to tackle complex analytical challenges. I am passionate about using these skills to derive actionable insights and solve real-world problems. Committed to continuous learning, I aim to stay updated on the latest trends and techniques in this dynamic field to enhance my skills and impact

Experience

May 2024 to July 2024 **Data and AI Intern** **Accenture**

- Studied about basic Supply Chain concepts (Purchase Order, Inventory Cost, Lead time etc.)
- Formulated the sourcing of materials as a constraint optimization problem
- Utilized the **PySCIPOpt** package to interface with the SCIP Optimization Suite for solving mathematical optimization problems.
- Developed a model to suggest best procurement strategy while maintaining optimal stock basis raw material commodity forecasted price, supplier constraints and contract terms and demand

Project

Sep 2023 to Oct 2023 **Forest Fire Detection using Support Vector Machine (SVM) for Datasets with Features more than Sample Data** [Link](#)

- Collected data of forest fire images and forest images from [Mendeley data](#) and [images.cv](#)
- Increased the size of the training data using Gaussian blur and median blur
- Resized the images to reduce the dimension of the training data
- Built a SVM model for distinguishing between forest fire images and forest images
- Deployed the model on **Streamlit**

Oct 2023 to Nov 2023 **Analytics Dashboard for US Macro-Economic Data (2002-2022)** [Link](#)

- Collected US Macro-Economic data from [Kaggle](#)
- Performed **EDA** on the collected data
- Utilized **R** and **Shiny** for developing a dashboard, along with libraries such as ggplot2 and plotly

Education

Aug 2023 to Present **M.Sc Data Science** **Chennai Mathematical Institute**

Dec 2020 to May 2023 **Bachelor of Mathematics (Hons.)** **Indian Statistical Institute, Bangalore**

Technical & Programming Skills

- Programming** : Python, R, Julia
- Libraries & Frameworks** : NumPy, SciPy, Pandas, Matplotlib, Seaborn, Plotly, ggplot2, Scikit-Learn, Keras, TensorFlow, PyTorch
- Software and Tools** : MS Excel, PowerBI, SQL, \LaTeX , VSCode, RStudio, WSL

Publication

- Performance Analysis of Support Vector Machine (SVM) on Challenging Datasets for Forest Fire Detection.**
Authors: Ankan Kar, Nirjhar Nath, Utpalraj Kempurai, Aman
[International Journal of Communications, Network and System Sciences, 17, 11-29.](#)

»»» Certifications

» Finlatics Business Analyst Experience Program

Issuing Organization: Finlatics | [View Certification](#) | [Letter of Recommendation](#)

» Introduction to Julia (for programmers)

Issuing Organization: Julia Academy | [View Certification](#)

» Madhava Mathematics Competition 2022

Issuing Organization: Dept of Mathematics, S.P. College, Pune and HBCSE, TIFR | [View Certification](#)

» Madhava Mathematics Competition 2021

Issuing Organization: Dept of Mathematics, S.P. College, Pune and HBCSE, TIFR | [View Certification](#)

» Python Programming : A concise Introduction

Issuing Organization: Coursera | [View Certification](#)

»»» Achievements

» ISI M.Stat Exam 2023 : AIR 32

» AHSEC Exam 2020 : 9th Rank

»»» Languages

English, Hindi, Assamese, Dimasa

»»» Hobbies

Table Tennis, Reading, Coding, Puzzle solving