# **Utkarsh Shrivastav**

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### **ACADEMIC PROJECTS**

- ❖ Combined Cycle Power Plant (Github) | Python,Pandas,Jupyter Notebook, scikit-learn
  - Developed this project to make prediction of net hourly electrical energy output using feature feature Temperature (T), Ambient Pressure (AP), Relative Humidity (RH) and Exhaust Vacuum (V).
  - Applied the Gradient Descent Algorithm of Machine learning to predict the net hourly electrical energy output (EP) using the scikit-learn library. Used Mean Absolute Error for measurement of the accuracy of the dataset.
- ❖ Handwritten Digit Recognition (Github) | Python, Tensorflow, Keras, Numpy, Jupyter Notebook
  - Developed a Handwritten Digit Recognition to predict the number using the different handwritten digits.
  - Build neural networks using **TensorFlow and keras**. Used the **softmax function** for the numerical stability and **Sparse Categorial Cross-entropy loss function** to make prediction between 0-9.
  - Used Confusion Matrix and Seaborn for the measure of accuracy of the dataset.
- Book Recommender Systems (Github). | Numpy, Pandas, Jupyter Notebook, Scikit-learn
  - Developed Recommender System for the books suggestion for the given book using the datasets from kaggle dataset.
  - Used Cosine Similarity for the similar books and Pandas for the data manipulation.
- Sudoku Solver (Github)

I C++

This is used to solve the sudoku problems using the **Backtracking Algorithm** learnt in Data Structure and Algorithm. Used the concept of **Recursion** to design the Backtracking Algorithm and some **File Handling** concepts to output the answer on text file.

### **ACHIEVEMENTS / HOBBIES**

- Codechef: 3 Stars with max rating: 1616 (Profile Link).
- Best ranking in the contest (codechef): Global Rank 85.
- Participated in the Meta Hacker Cup (Certificate).
- Playing Chess and Reading Books.

## **RELEVANT COURSES**

- Data Structure
- Computer Programming in C++

## **Online Courses**

- Artificial Intelligence Foundations: Thinking Machines
- Supervised Machine Learning: Regression and Classification
- Advanced Learning Algorithms
- Unsupervised Learning, Recommenders, Reinforcement Learning
- Machine Learning Specialization

#### **EDUCATION**

Electronics and Communication(ECE) | Institute of Engineering & Technology, DAVV CGPA: 7.26 | (Nov 2021 - Present)