Aryan Vashistha ⌕

Indian Institute of Technology, Mandi
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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Mandi	7.96 (Current)	2020-Present
Senior Secondary	CBSE Board	91.0%	2019
Secondary	ICSE Board	94.6%	2017

Relevant Coursework : Data Structures and Algorithms, Linear Algebra, Data Science and Machine Learning, Matrix Theory, Electrical System, Applied Electronics, Communication Theory, Device Electronics for ICs, Analog Circuit Design

EXPERIENCE AND INTERNSHIP

Intern @ Texas Instruments ⌕　　　　　　　　　　　　　　　　　　　　　　　　　*January 2023 - July 2023*
Analog Test Engineer Intern　　　　　　　　　　　　　　　　　　　　　　　　　　　Bangalore, Karnataka
- ***Automation and Data Analysis in Spotfire Software with Python and IronPython***: Automated the **seamless integration** of Datalog files **from** the **tester** into the *Spotfire* software, effectively **handling broken files** in **real-time**. Conducted comprehensive data analysis of Datalog files utilizing Python and IronPython scripts.

- ***GUI-Based Data Analysis Tool for ATE (Automated Test Equipment)***: Designed and developed a user-friendly graphical interface *(GUI)* tool using ***Tkinter*** and Python for efficient data analysis of diverse Datalog files. In engineering development, this tool can be **continuously fed log files** as and when any data is collected and continue to have an idea of marginalities/instabilities or data distributions during development. In production data analysis, the tool can be used specifically to **understand** the **yield losses**, **generates plots** for visual analysis of data, *site–site* skews or *lot–lot* skews, CPK, understand the data distributions for high volumes.

Intern @ Filo Ed Tech　　　　　　　　　　　　　　　　　　　　　　　　　　*October 2020 - March 2021*
Student-counsellor and mentor　　　　　　　　　　　　　　　　　　　　　　　　　　　　Remote
- Worked as a Student-counsellor and mentor during 1st year in an Edtech company led by IIT Kgp students helping more than 400 students with the challanges faced by them during their course of preperation of JEE

PROJECTS

- **Autoregression on Covid 19 (Prediction of covid 2nd wave predictor)** ⍟　　　　　　　　　　*Oct-2021*
  ML based application
  – Deployed a ML based Auto-regression model to predict the second covid wave over a dataset collected from open-source API, about the active cases until October-2021
- **Fake Face Image (generated using GAN's) Classification** ⌕　　　　　　　　　　　　　*December-2021*
  Deep Learning model with CNN
  – Created a ML model using **CNN** to classify media as Real or fake (GAN generated) with an accuracy of **80%**.
  – Worked in a team of 2 & Ranked 3rd among 100+ competitors in an Intra-IIT competition.
- **Credit Card Fraud Detection using Machine Learning in Python** ⍟　　　　　　　　　　　*Jan-2022*
  SKLearn, Log Regression based Anomaly Detector
  – Credit card fraud detection poses a major challenge for standard classification techniques, due to highly ***class imbalanced data***. In our dataset, there were 492 true negative labels, out of total 284807 samples.
  – Used Anomaly detection technique over a high dimensional dataset, reduced to 28 most significant PC's & with **93.9%** recall.
  – further we can use techniques such as **SMOTE** to **synthetically** generate **dataset** for labels with fewer class samples.
- **Customer Segmentation using K-Means Clustering with Python** ⍟　　　　　　　　　　　*Mar-2022*
  K-Means Clustering
  – Choosing important target labels after analysing the dataset with fewer samples (200 samples).
  – Applied K-Means clustering, deciding the optimum number of clusters using Elbow method

TECHNICAL SKILLS

- **Programming**: Python,C/C++, Java
- **Web Technologies**: HTML, CSS, Javascript, React
- **Relevant Libraries, framework**: Pandas, Numpy, Matplotlib, Latex, ScikitLearn,Tkinter
- **Additional Tools**: Solidworks, Fusion360,Unity

POR AND EXTRA-CURRICULARS

- **IIT Mandi Catalyst Member** : Part of IIT Mandi Catalyst volunteer team for collecting the database of the startups ,contacting the individuals to gather information and for works related to web design for Himalayan Startup Challange 2022.
- **Xpecto Techincal fest Publicity team** :Worked as a Core team member in the publicity team to organize IIT Mandi's first Independent Technical fest Xpecto.
- **Volunteer of NSS :**Part of NSS IIT Mandi , interacting and working in team to understand problems faced by the locals, spreading awareness, and organizing events.
- **Secured 99.3 percentile in JEE Mains Examination**
- Scored Rank 12 in Sainik School Entrance Examination
- Studied Basic Japanese Vocabulary and Phrases Using the Duolingo App