



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2023	B.TECH	IIT Kharagpur	6.82 / 10
2017	AISSCE	Saraswathi Vidyaniketan Public School	87.4%
2015	AISSE	Saraswathi Vidyaniketan Public School	10 / 10

SKILLS AND EXPERTISE

Languages: C, C++, Python, SQL, Golang

Libraries and Frameworks: NumPy, Pandas, Matplotlib, Scikit-Learn, Seaborn, SciPy, PyTorch, TensorFlow, Keras, OpenCV, BeautifulSoup, spaCy, NLTK

INTERNSHIPS

CS Intern | Heltar

[Apr - Aug 2022]

- **Led** and **managed** a team of two that ideated, curated and executed various **technical models** and **case studies**
- Developed a **Human Activity Recognition (HAR)** model using **Bi-LSTM** to **categorise** 12 activities with an **F1 Score** of **0.79**
- Performed **sentiment analysis** using **NLTK** to find the **correlation** between company stock prices and the tweets about them
- Analysed numerous models that can **detect** fake news using **classifiers** and build a **CNN** classifier with an accuracy of **99%**
- Designed **system architectures** aimed at incorporating **AWS** into various industries like smart metering and film distribution
- Performed company **strategy analysis** using industry tools like **Porter's Five Forces**, **PESTEL analysis** and **SWOT analysis**

AI/ML Intern | APTCODER

[Mar - July 2022]

- **Curated** and **created** Python **content** for teachers to teach in coding camps and online classes for students in classes 6 - 12
- **Managed** a team of 2 to cover topics ranging from **data analytics** to **artificial intelligence** using theory and **coding activities**
- Libraries like **TensorFlow**, **Keras**, **OpenCV** and BeautifulSoup were used for activities involving **Computer Vision** and **NLP**

AI/ML Intern | Appciliious Pvt Ltd

[Dec 2021]

- Used **Generational Adversarial Networks** with an **MOS** (Mean Opinion Score) of **3.56** for **text-to-speech (TTS)** applications
- Implemented a **REST API** using **Flask** to help in the **extraction** of data relevant for **model training**

Business Analyst | ExamBazaar

[Dec 2021 - Mar 2022]

- **Scaled database** by collecting and adding information about new startups, investors and funding events in the Indian Market
- Analysed the data to create **weekly** and **monthly presentations** of interesting startups for the **management team**

Volunteering | Team Everest

[Nov 2021]

- Created and documented **20** simple games to keep in touch with young kids from **rural** and **underprivileged areas**

PROJECTS

User Authentication using Mouse Dynamics | IIT Kharagpur

- Developed a Machine Learning model to aid in **security** by accurately **identifying a user** based on their **mouse dynamics**
- A software was used to **collect** various types of **data** pertaining to mouse dynamics from **12 users** spanned over **45 days**
- Built a **kNN classifier** with **feature selection** to correctly classify a user as authorised personnel or not with **59%** accuracy

Offline Handwritten Character Recognition using Quantum CNN | IIT Kharagpur

- Implemented a **Quantum CNN** model using a variational quantum circuit for offline **Optical Character Recognition (OCR)**
- **Improvement** of **7%** in accuracy was observed when Quantum CNN models were used as opposed to conventional CNNs

License Plate Reader

- Created a **VGG16** model to **identify** and **read** licence plates from traffic cam pictures using **bounding boxes** and **EasyOCR**
- Accuracies upwards of **85%** were attained when **OpenCV**, **TensorFlow** and **Keras** were used for VGG16 and VGG19 models

Movie Recommender

- Developed a movie **recommendation model** that is based on **user history** using **SVD** and a database of over **17,000** movies
- **Processed** and **mapped** the datasets to **reduce** their size by **30%**, which led to a similar reduction in the training time

Credit Card Fraud Detection

- Built a predictive model to **detect** credit card fraud using a **Random Forest** classifier that achieved an **F1 score** of **85%**
- **Improvement** of **6%** was observed in the F1 score when **Isolation Forest** was used on the same preprocessed data

COURSEWORK INFORMATION

Data Analytics | Machine Learning | Probability and Stochastic Processes | Neural Networks and Applications | Data Structures and Object Representation | Information Theory and Coding Techniques | Natural Language Processing | Digital Image Processing | Introduction to Object Detection

POSITIONS OF RESPONSIBILITY

Coordinator, Basketball | LLR Hall of Residence | IIT Kharagpur

[July 2019 - April 2020]

- Optimally **managed** an annual basketball **budget** of INR **13k** to ensure better facilities in the hall for inter-hall basketball events
- **Conducted** trials and managed **3** practice sessions **per week** by ensuring to meet the daily **requirements** of the team

Teacher | TopTrove Foundation

[Dec 2021]

- Held online classes to **teach C++** to **25** college students using a self-made curriculum and course materials as part of an **NGO**
- **Collaborated** with other mentors to hold **weekly** sessions to introduce the students to various fields of programming