# **Aman Kumar**

■ ak59@iitbbs.ac.in

in amankumarbbs

. (+91) 8789193014

# **EDUCATION**

Indian Institute of Technology Bhubaneswar

Bachelor of Technology in Civil Engineering, 8.28 CGPA

Army Public School Danapur Cantt.

CBSE Class XII, 90.4%

Army Public School Dinjan

CBSE Class X, 10 CGPA

Bhubaneswar, Odisha

2017 - 2021

Patna, Bihar

2015 - 2016

Dinjan, Assam

, 2013 - 2014

# **TECHNICAL SKILLS**

Programming Languages Technologies Others C++, Python, MATLAB, HTML, CSS, JavaScript React.js, Node.js, Express.js, MongoDB, SQL Package managers, Git, Github, MS Excel, OOPS

**PROJECTS** 

### Expense Tracker Application | 🖸 | 🗹

May 2023

- Developed a complete expense tracking CRUD application using the MERN Stack.
- o Implemented key features including expense creation, management, viewing, and expense analysis over time.
- o Utilized Node.js, Express for backend and MongoDB for efficient data storage and retrieval.

# To Do Application | 🗘 | 🗹

April 2023 - May 2023

- Developed a feature-rich ToDo application utilizing React for the frontend, MongoDB for the database, and Express and Node.js for the backend, providing a seamless and responsive user experience.
- Ensured code quality and maintainability by following SOLID, DRY, and KISS principles, resulting in clean, modular, and efficient code that is easier to understand, test, and extend.

### Repeat purchase Probability Prediction from Purchase History

Feb 2023 - March 2023

- ${\color{blue} \circ} \ \textbf{Analysed} \ \text{large amount of sales data and performed } \textbf{EDA} \ \text{in python to identify purchasing pattern}. \\$
- o **Identified** target variable and performed **feature engineering** to cluster the customers.
- o **Summarized** the purchasing history for each customer in a row to feed into a model for classification.
- Trained and tuned multiple classifiers and boosting algorithms and ensembled the best performing models to achieve a AUC score of 0.91.

#### Scene Classification using Transfer Learning

March 2023

Used a sequential NN with a pytorch pre-trained model as base and ensembled the best performing models.

### **EXPERIENCES**

#### Use of Red Mud in production of concrete - A Review

*May* 2020 - *July* 2020

Supervisor: Dr. Jothi Saravanan Thiyagarajan, Assistant Professor, IIT Bhubaneswar

- Analysed the previous works done on the use of red mud as a constituent of geopolymer concrete.
- Deduced the conditions for optimal utilization of red mud with maximum strength.

#### Mumbai Metro Rail Corporation

*May 2019 - June 2019* 

Analysed quality and safety control protocols being followed at site and improved the workflow by 15%.

### RESEARCH PUBLICATIONS

☑ | Aman Kumar et al., Leaching and heavy metal binding characteristics of red mud-based construction materials
Select Proceedings of ICSMC 2021, Lecture Notes in Civil Engineering, Springer Singapore, 2022

[4] Aman Kumar, T. Jothi Saravanan, K.I. Syed Ahmed Kabeer, A review on the utilization of red mud for the production of geopolymer and alkali-activated concrete, Construction and Building Materials, Volume 302, 2021

# **POSITION OF RESPONSIBILITY**

#### Football Secretary, Students' Gymkhana, IIT Bhubaneswar

April 2018 - March 2019

o Managed Intra/Inter-College events and organised inter IIT trials with a footfall of 150 students.

#### Student Guide, Counselling Service Team, IIT Bhubaneswar

April 2018 - March 2019

o Mentored and guided 10 freshmen students in acclimatizing to the environment of the institute.

## **ACHIEVEMENTS**

- o Won the inter college football tournament at Ashwamedha, IIT Bhubaneswar, 2018
- o Member of Inter IIT Sports Meet contingent of IIT Bhubaneswar for two consecutive years, 2017 and 2018
- Oualified the written exam of National Defence Academy, 2017
- Won the District level basketball and football tournaments and represented at state level (Assam), 2014

.