# Kinshuk Bhardwaj

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#### **EDUCATION**

### Indian Institute of Technology, Madras

Chennai

B. Tech Naval Architecture and Ocean Engineering, MBA (Dual Degree), CGPA: 8.14

2025

## WORK EXPERIENCE

## **DentalPaas**

Sept'23-Nov'23

Computer Vision Engineer

- Researched and created a Computer Vision algorithm that can **identify** human teeth from a given X-Ray
- Processed 100+ dental panoramic X-Ray images in order to establish the training data set for the CV model
- Adapted a U-Net CV model to craft a semantic image classification algorithm with an accuracy of 90%

CoreVoice May'23-July'23

Data Analyst Intern

- Built an extensive data analysis report to show the impact of the AskIITM project on 2023 JOSAA ranks
- Analyzed 4000+ samples, conducting exploratory data analysis over the last 8 years for trend identification
- Constructed a linear regression model with 94.7% accuracy to predict the final closing ranks for 2023
- Found that the opening and closing ranks have decreased by 7% due to the AskIITM Campaign's impact

## **Department of Applied Mechanics, IIT Madras**

May'22-July'22

Reserach Assistant

- Developed a self-rising seat prototype capable of supporting 80% of average body weight while sitting
- Analyzed the biomechanics of seating and determined a 35° angle for optimal support during getting up
- Created a system using torsional and helical springs, capable of supporting up to 35° in the final prototype

## PROJECT WORK

# B.Tech Project, Department of Ocean Engineering, IIT Madras

Aug'23-Present

- Final year project on **Physics Informed Neural Networks** (PINNs), with the aim to simulate fluid flow
- Developed a physics-informed neural network with 10 layers and 160 epochs to autonomously solve PDEs
- Simulated fluid flow around a 2-D cylinder and solved the Navier-Stokes equation with a 91% accuracy

# **Credit Card Fraud Detection**

June'22-April'23

- Processed 284000+ samples, conducted exploratory data analysis to identify patterns & trends in the dataset
- Implemented a Logistic Regression algorithm to detect fraudulent transactions using Sklearn (Python lib.)
- Achieved an accuracy score of 90.5% on the logistic regression model to be able to detect credit card fraud

## LEADERSHIP EXPERIENCE

## Non Competitive Events, Saarang, IIT Madras Head

June'22-April'23

- Led the largest team in Saarang, with a budget of 4L+, managing 25+ coordinators and 60+ volunteers
- Conducted 25+ events featuring VIP guests, and handled a crowd of over 10k people throughout 5 days

# Informals Club, Sangam, IIT Madras

June'22-April'23

- Head
- Headed a team of 9 Coordinators, managed a club budget of 2L+ lacs, & board game inventory worth 30k
- Supervised 6k+ students, while organizing LITSOC 2022, hosting high-scoring events for the competition

### **CERTIFICATION & ACHIEVEMENTS**

Certifications: "Responsive Web Design" by FreeCodeCamp, "Summer Analytics 2023" by IIT-Guwahati Achievements: Represented IITM at 6th annual Inter IIT Cultural Meet, 44th International Chess Olympiad

# **SKILLS & INTERESTS**

Skills: C++ | Python ( Pandas, Seaborn, Scikit-Learn, TensorFlow) | Azure | SQL | PowerBI | Tableau

Interests: Data Science and Analytics, AI & ML, Finance, Chess, Fine Arts, Chinese (A1 in TOCFL), Japanese