Juee Jahagirdar

Aspiring Data Scientist | IIT Bombay

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LinkedIn   GitHub

SCHOLASTIC ACHIEVEMENTS

- Achieved **98.47** percentile in the JEE Advanced examination among **0.18 million+** candidates across India *(2023)*
- Secured **99.44** percentile in JEE Mains examination among **1 million+** candidates across India *(2023)*
- Scored **100%** in **Mathematics** and **Sanskrit** in CBSE Class X among **2.1 million+** candidates *(2021)*

WORK EXPERIENCE

Freelance AI Developer | **Fiverr** *(Jan'25 - Present)*

- Developed **custom AI-powered music recommendation systems** using Spotify API and ML algorithms
- Personalized playlists based on user preferences, using filtering and content-based recommendation techniques
- Managed **client requests, revisions, and project scopes**, ensuring clear communication, timely updates, seamless coordination, and refinements based on feedback to improve **customer satisfaction** and AI model performance

KEY PROJECTS

Cosmic Classifier – First Prize | **Cognizance 2025, IIT Roorkee** *(March '25)*
GitHub: Project Repository

- Built an end-to-end **ML classification pipeline** for identifying planetary types using **high-dimensional**, **noisy datasets**, and implemented **preprocessing** using `StandardScaler` and rigorous train-test split methodology
- Applied supervised learning techniques and evaluated performance using `accuracy_score`; conducted extensive experimentation to **optimize model accuracy** for final offline deployment during **IIT Roorkee's** Cognizance techfest
- **Secured top rank** at a premier national-level technical fest, competing against teams from **institutes across India**

Music Recommender System | **WiDS** | **Analytics Club** | **IIT Bombay** *(Dec'24 - Feb '25)*
GitHub: Project Repository

- Designed a personalized **music recommendation system** using a combination of **Natural Language Processing (NLP)** and **machine learning algorithms** to analyze **user preferences** and provide relevant music suggestions
- Integrated **Spotify Web API** for real-time metadata retrieval, utilizing techniques like **Cosine Similarity** and **TF-IDF** for generating recommendations; developed the model in **Jupyter Notebook** and serialized using **Pickle**
- Evaluated model performance using **precision, recall, and F1 score**, and fine-tuned hyperparameters via **GridSearchCV** to improve recommendation accuracy by **optimizing feature selection and similarity thresholds**

Sarcasm Detection Bot | **Self Project** Repository *(March '25)*

- Designed and implemented a **deep learning-based** sarcasm detection system using advanced **NLP** techniques, such as tokenization, padding, and leveraging **pretrained word embeddings** (GloVe) for efficient feature extraction.
- Built and optimized a hybrid **CNN-LSTM model** using **TensorFlow** and **Keras**, employing **Convolutional Neural Networks (CNN)** to capture local patterns in text and **LSTM networks** for sequential context understanding
- Deployed the trained model as a fully-functional **web application** using **Gradio**, providing users with an intuitive interface to input text and receive **real-time predictions** for sarcasm detection, achieving **over 80% accuracy**

Smart India Hackathon | **AICTE, MIC-Student Innovation** | **Ministry of Education** *(Aug'24 - Nov'24)*
Selected in the internal hackathon, qualifying for the prestigious Smart India Hackathon to compete at the national level

- Developing **advanced drones** to address critical challenges such as medical emergency response and search and rescue operations, as part of the prestigious **Smart India Hackathon** under the **Student Innovation** theme category
- Collaborated with a **multi-disciplinary team** to design and prototype innovative hardware solutions, leveraging robotics and drone technology for real-world problem-solving, significantly impacting emergency management in India

Finsearch | **Finance Club** | **IIT Bombay** *(Aug'24)*

- Successfully completed a summer course on **Optimizing Portfolio Performance During Economic Recessions**, developing expertise in financial strategies, including asset allocation, risk mitigation techniques, and market analysis
- Explored **Modern Portfolio Theory (MPT)**, delving into concepts of diversification, **risk-return trade-offs**, & the efficient frontier, focussing on **portfolio stability** & maximizing consistent returns in **volatile** market conditions

Solve For Society | Amazon Future Engineer's Challenge | The Innovation Story *(July'24 - Aug'24)*
- Mentored two teams consisting of 8th grade students from underserved communities, promoting critical thinking skills
- Guided in developing an **AI system** to convert idle school periods into educational sessions while monitoring noise levels
- Delivered **interactive audio content** that enhances skills and **promotes a culture of learning** during leisure periods

Makerspace Project | MS101 | IIT Bombay *(Sept'23 - Nov'23)*
- Designed, constructed, and meticulously tested a mini **Universal Testing Machine** as part of a course project, employing **engineering principles** to ensure **optimal functionality** and precision in measuring material strength and performance
- Performed **CAD modeling** to create detailed designs, ensuring accurate dimensions and material specifications

CERTIFICATIONS

- **Summer of Quant** | **Quant Community** | IIT Bombay *(Jun'23)*
  Completed an intensive summer course on **Probability and Financial Derivatives**, gaining in-depth expertise in **quantitative finance** and essential risk management techniques, with practical applications in financial markets

- **The Complete Python Bootcamp: From Zero to Hero in Python** | Udemy *(Sep'24)*
  Completed a comprehensive **22-hour course** covering the essential aspects of **Python programming**, including basic syntax, functions, loops, **object-oriented principles**, **file handling**, and **data manipulation techniques**

TECHNICAL SKILLS

Programming	C, C++, Python, HTML, LaTeX
Libraries	Numpy, Pandas, Scikit-learn, Matplotlib, Seaborn, Tensorflow, Keras, Pytorch
Softwares	Jupyter, Git & Github, Conda, Arduino IDE, SolidWorks, MATLAB, Canva, Fusion 360

POSITIONS OF RESPONSIBILITY

Institute Technical Convener | Tinkerers' Lab | IIT Bombay *(Apr'24 - Present)*
An integral team member of alumni-funded 'makerspace' for innovators to encourage prototyping and execution
- Ideated & **Leading PCB**, Tinkerers' Lab's flagship event, a battle bot making competition with **100+** participants
- Conducted summer training sessions on **Solidworks, LaserCAD, Conda & Python** for an enthusiastic cohort of students, significantly enhancing their technical skills as part of the **Learner's Space**, a summer program
- Gained extensive hands-on experience with **laser cutters, 3D printers**, and various **power tools**, such as drill machines, angle grinders, sanders, contributing significantly to multiple advanced prototyping projects in the lab
- Designed **merchandise** and developed engaging promotional materials, including posters, boosting **lab visibility**

KEY COURSES UNDERTAKEN

Category	Courses
CS and DS	Computer Programming Basics (C++), Statistical Machine Learning & Data Mining, Applied Data Science & Machine Learning
Mechanical	Structural Materials, Thermodynamics, Solid Mechanics, Fluid Mechanics, Mechanical Processing of Materials, Analysis & Design of Mechanical Systems
Makerspace	AutoDesk Fusion 360, Electrical and Electronic Circuits, Arduino IDE
Math	Calculus, Differential Equations, Linear Algebra, Statistics
Miscellaneous	Entrepreneurship, Design, Psychology, Economics, Biology

EXTRACURRICULAR ACTIVITIES

- Mentored a 4-member team in the **RC Plane Competition | Aeromodelling Club | IIT Bombay**, guiding them through designing, constructing, testing, & successfully flying their custom-built plane safely *(2024)*
- Volunteered with **Smile Foundation** and **Gnaanu Foundation** for a social outreach event, a **Hovercraft Workshop** guiding **200+** children from government schools in building **working prototypes** of a hovercraft successfully *(2023)*
- Volunteered with **NSS Green Campus**, actively involved in nurturing plants and spaces in the campus *(2023)*
- Wrote and published a well-researched article in **Times NIE**, demonstrating strong writing skills *(2019)*