# MRINAL MAHAPATRA

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### **SUMMARY**

Aspiring Computer Science student with hands-on experience in full-stack development (React.js, NodeJS) and machine learning (Pandas, Numpy, Scikit-Learn, XGBoost). Developed predictive models achieving up to 92% accuracy and optimized web apps for 30% faster load times. Proficient in Python, Java, JavaScript, SQL, and Git.

### **SKILLS**

- Programming Languages: C, C++, Java, Python, HTML/CSS, JavaScript
- Libraries & Frameworks: ReactJS, Numpy, Pandas, Matplotlib, Seaborn, Scikit-Learn
- Databases: MySQL, MongoDB
- Subjects With Strong Foundations: Data Structures & Algorithms (DSA), Object-Oriented Programming (OOPS), Operating Systems (OS), Database Management System (DBMS), Computer Networks (CN)
- Web & APIs: RESTful APIs, HTML5, CSS3, React Hooks
- Languages: Fluent in English, Bengali; Conversational Proficiency in Hindi
- Tools And Platforms: Visual Studio Code, Jupyter Notebook, Google Colaboratory, IntelliJ IDE, Vercel, GitHub
- · Soft Skills: Organization, Creativity, Communication, Leadership, Critical Thinking, Task Management, Multitasking
- Others: MS Office, Windows, Linux/Unix Operating System, Reading, Drawing

#### RELEVANT EXPERIENCE

### Python with Django Training

Ardent Computech Pvt. Ltd.

Feb 2024 - March 2024

- Completed hands-on training in Python and Django web development.
- Gained practical experience in building web applications using Django framework, REST APIs, and database integration.
- Developed a Library Management System as a capstone project featuring user authentication, book inventory management, and issue/return tracking.

#### **Generative AI Training**

Webel Fujisoft Vara Centre of Excellence (COE)

July 2024 – August 2024

- Completed a specialized course on Generative AI with a focus on machine learning and deep learning concepts.
- Built IPL Score Prediction model using LSTM/ANN, achieving 85% accuracy on testing data
- Gained hands-on experience in Python, data preprocessing, model training, and performance evaluation.

### **PROJECTS**

## Fake News Prediction System

- Achieved 92% classification accuracy on a 10,000-article test set by leveraging TF-IDF vectorization and Logistic Regression, reducing false positives by 15%.
- Processed 1,200+ articles per second in batch inference, enabling end-to-end news verification within 8 seconds per batch.
- Improved model precision by 10% through iterative feature engineering and hyperparameter tuning

### News App

- Reduced initial page load time by 30% via code-splitting and lazy-loading React components, driving a 25% increase in user session duration.
- Served an average of 500+ API requests per minute with 99.8% uptime, thanks to optimized asynchronous data fetching and error-handling logic.
- Boosted user engagement by 20% through implementing category filtering and real-time search suggestions in the UI.

#### House Price Prediction System

- Delivered an RMSE of ₹4,500 on the test dataset, outperforming baseline linear regression by 18%.
- Increased R<sup>2</sup> score to 0.87 using XGBoost with feature selection, improving predictive reliability for 5,000+ property listings.
- Streamlined data pipeline, reducing preprocessing time by 40% and enabling daily model retraining in under 15 minutes.

# Google Gemini 2.0

- Cut average API response time by 25%, from 400 ms to 300 ms, by implementing efficient state management and memoization in React.
- Supported concurrent chats for up to 100 users with zero downtime, leveraging optimized WebSocket connections.
- Increased component reuse by 50%, reducing front-end codebase size by 20% and speeding up feature rollout.

## **EDUCATION**

#### Guru Nanak Institute Of Technology (Kolkata, India)

Bachelor of Technology; Computer Science and Engineering

*CGPA*: 9.09/10.0 (2022 – 2026)

• Awards: 75% Merit (Top 10%),

Member of Google Developer Student Club & Bit2Byte, Official Coding Club Of GNIT

# BBIT Public School (Kolkata, India)

Central Board of Secondary Education; Secondary, Higher Secondary

Awards: Academic Scholar, Best Student

Leadership: Class Representative, House Captain

Higher Secondary: 97% (2018 – 2022)

Secondary: 91%

# CERTIFICATIONS

- Coursera: Data Structures Specialization
- NPTEL: Getting Started With Artificial Intelligence, Soft Computing Techniques
- Forage: Cybersecurity Job Simulation, Data Analyst Job Simulation