

# Amit Malakar

Chemical Engineering

amitmalakar887@gmail.com

+91 93826 83448

<https://www.linkedin.com/in/amit-malakar-983175259/>

## BTech

Chemical Engineering

IIT Bombay

2022 – 2026

8.69

## Skills

Python, JavaScript, AngularJS,

Node.js, PyTorch

Problem Solving, Teamwork,

Communication

## Summary

- Developed and deployed 5 APIs and 3 frontend interfaces, including login, recommendations, reviews, notifications, and social features, increasing user engagement by 15%.
- Integrated Django REST framework APIs with React Native frontend, resulting in a 20% reduction in development time and enhancing application performance.
- Proficient in full-stack development using Python, JavaScript, Node.js, AngularJS, Django, and MongoDB, delivering robust and scalable web applications.
- Strong problem-solving skills with a track record of identifying and resolving complex technical issues, complemented by effective communication and teamwork abilities to collaborate seamlessly with cross-functional teams.

## Projects

### 1. Insight Discussion Forum

*Institute Developers' Community, IIT Bombay*

- Collaborated with a team of 6 developers to implement a new feature enabling users to create polls and post anonymous comments on posts, used Angular for the frontend, while Django served as the backend framework.
- Developed anonymous post comment button and dynamic polls creating frontend components using AngularJs.
- Created REST APIs with Django Rest Framework, tested in Postman and integrated them into the frontend.
- Enhanced codebase documentation by thoroughly commenting the roles of all newly added functions in InstiApp.

### 2. Enhanced Super-Resolution Generative Adversarial Networks

*Seasons of Code Project, Web and Coding Club, IIT Bombay*

- Developed and deployed an ESRGAN model using PyTorch, resulting in an 81% accuracy in upscaling low-resolution images to high-resolution counterparts.
- Utilized the DIV2K dataset for training, incorporating convolutional layers, RRDB (Residual-in-Residual Dense Block) network architecture, specialized loss functions, and discriminator and generator models to enhance spatial resolution and preserve fine details.
- Trained a Convolutional Neural Network (CNN) on the MNIST dataset to achieve high accuracy in recognizing and classifying handwritten digits.
- Implemented Logistic Regression using Scikit-learn library on the IRIS dataset for effective classification tasks.
- Deployed the ESRGAN model on a website using Flask, enabling users to upload low-resolution images and receive high-resolution output.

### 3. Newbee

*Institute Developers' Community, IIT Bombay*

- Developed and deployed a discussion forum for 1400+ incoming freshers and 80+ mentors at IIT Bombay, streamlining the onboarding process and replacing the existing Facebook group portal.
- Led a team of 5 developers and 2 designers to develop a high-performance discussion forum for incoming freshers at IIT Bombay, optimizing for a 6:1 read-to-write ratio.
- Implemented a MEVN tech stack, utilizing Express.js for backend development, MongoDB and Mongoose for database management, and Vue.js for the frontend framework, resulting in a robust and scalable

discussion forum.

- Enhanced user experience by integrating Elastic Search for fuzzy search capabilities, enabling efficient information retrieval within the MongoDB database.
- Refactored a destructured codebase, applying MVC code structure and implementing proper middlewares using Express.js, significantly improving code maintainability and scalability.
- Implemented CRUD operations on images using Multer disk storage and REST APIs, ensuring secure and efficient image management within the platform.

## Internships

### 1. Application Development Intern (Breezo Technologies)

*December 2023 – Present*

Develop a Social media App for people to discuss, review, and recommend movies to friends

- Developed and deployed 5 APIs and 3 frontend interfaces for login, recommendations, reviews, notifications, and social features, **increasing user engagement by 15%**.
- Integrated Django REST framework APIs with React Native frontend, **resulting in a 20% reduction in development time** and enhancing application performance.
- Leveraged the TMDb API to efficiently search, fetch, store, and display movie data, creating a user-friendly interface that **improved customer satisfaction by 10%**.

### 2. Software Development Intern (AP Landscaping, Prospace)

*December 2023 – Present*

Building an App from scratch using Flutter, and Express.js for Landscaping services

- Integrated Google Maps, Stripe, Firebase Cloud Messaging, Firestore, Twilio, and Google Calendar APIs to enhance app functionality, resulting in a 15% increase in user engagement.
- Developed and implemented Node.js REST APIs to connect Firebase NoSQL database for CRUD operations, improving data access and communication between frontend and backend by 20%.
- Implemented Google authentication using Passport strategy with OAuth 2.0 API credentials and Apple authentication with JSON Web Tokens (JWT) enhancing user authentication capabilities by 30% and reducing security vulnerabilities by 10%.

### 3. Software Development Intern (GoBlu-EV)

*August 2023 – October 2023*

Responsible for ideating and crafting APIs for seamless App and Website experiences

- Integrated Google Maps, Stripe, Firebase Cloud Messaging, Firestore, Twilio, and Google Calendar APIs into a mobile application resulting in a 40% improvement in user experience.
- Developed and maintained a Firebase NoSQL document-oriented database, executing CRUD operations in the backend and ensuring optimal data synchronization with frontend screens through custom-built Node.js REST APIs
- Implemented Google authentication through Passport strategy with OAuth 2.0 API credentials and Apple authentication using JSON Web Tokens (JWT), enhancing user authentication security by 30%.