

MOSAM SANJAY BISWAS

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Summary

B.Tech Computer Engineering (AI & Data Science) graduate with software internship experience and IEEE-published ML research. Builds end-to-end products across LLM-powered backends (FastAPI, OpenAI API), full-stack web apps (Next.js, Node.js, Flask), real-time systems (WebSockets), and Android – including a mental health platform used by 100+ students.

Education

Ramrao Adik Institute of Technology, D. Y. Patil Deemed to be University

July 2022 – 2026

B.Tech in Computer Engineering (Major: Artificial Intelligence and Data Science), CGPA: 7.5

Navi Mumbai, India

Narayana Junior College, Kalyan (HSC)

2020 – 2022

12th Grade, Percentage: 60.83%

Mumbai, India

Omkar International School (ICSE)

2010 – 2020

10th Grade, Percentage: 88.20%

Mumbai, India

Experience

Sedna Technologies

Jan 2026 – Apr 2026

Software Developer Intern

Mumbai, India

- Delivered **4 individual client projects** end-to-end, working directly with clients to gather requirements, address concerns, and resolve issues, improving client satisfaction.
- Independently designed and built a **client-facing dashboard** solo, owning requirements through delivery.
- Collaborated on feature development, testing, and debugging, strengthening production coding practices.

Projects

IntelliStatement | *Python, FastAPI, Streamlit, OpenAI API, LLM Integration*

2025

- Built an **AI-powered bank statement analyzer** that extracts transactions from PDF and image statements using **LLM-based parsing** and surfaces categorized financial insights on an interactive Streamlit dashboard.
- Developed **FastAPI endpoints** for document upload, LLM-driven transaction extraction, and structured outputs.

MindFirst | *Python, Flask, Next.js, Prisma, NextAuth, Tailwind CSS*

Apr 2025

- Developed a **mental health screening platform used by 100+ students** to identify potential disorders through chatbot and psychometric analysis with **95% accuracy**.
- Integrated **NextAuth** authentication and personalized mental health reports, **reducing user drop-off by 30%**.

Dacx | *Python, WebSockets (asyncio), CustomTkinter, Spotify Web API, OAuth*

2026

- Engineered a **phone-to-PC wireless control deck** for volume, brightness, media keys, and app shortcuts over local Wi-Fi through a **real-time asyncio WebSocket server** – fully local, with no cloud dependency.
- Integrated **Windows OS APIs** (Core Audio, WMI, media keys) and **Spotify OAuth playback** with QR device pairing.

ArtScape | *Node.js, Express.js, MongoDB, JWT, Three.js, REST APIs*

2026

- Built and **deployed a location-based AR art gallery** (live on Vercel) where admins anchor virtual artworks to GPS coordinates and users discover them via a camera AR view using **Three.js** and **Geolocation APIs**.
- Implemented a **REST backend with JWT authentication** and **MongoDB geospatial indexing** for proximity queries.

Rail Mitra | *Python, Google OR-Tools, Constraint Programming*

2025

- Developed a **railway platform and track-assignment optimizer** using **constraint programming** (Google OR-Tools), modeling platform allocation and track occupancy rules to generate conflict-free schedules.

Research & Publications

- Comparative Analysis of Psychometric Data for Assessing Mental Health Testing Needs Using Machine Learning Models** – Published in **IEEE Xplore**, Proc. 2nd International Conference on Artificial Intelligence for Innovations in Healthcare Industries (ICAIHI 2025). DOI: [10.1109/ICAIHI67124.2025.11403838](https://doi.org/10.1109/ICAIHI67124.2025.11403838)
- Benchmarked **Logistic Regression, Random Forest, SVM, XGBoost, and LightGBM** on PHQ-9/GAD-7 psychometric data with cross-validation and **SHAP interpretability**, achieving ~99% accuracy for pre-screening triage.

Technical Skills

Languages: Python, Java, JavaScript, TypeScript, C++, C, SQL, HTML/CSS

AI/ML: PyTorch, TensorFlow, scikit-learn, XGBoost, SHAP, Pandas, GANs, LLM Integration (OpenAI API)

Web & Backend: FastAPI, Flask, Node.js, Express.js, Next.js, React, REST APIs, WebSockets, Streamlit

Mobile & Databases: Android (Java), Firebase, MongoDB, MySQL, PostgreSQL

Tools & Cloud: Git/GitHub, AWS, Vercel, Postman, Jupyter, Google OR-Tools, Power BI, Figma, LaTeX

Certifications & Community

Certifications: [AWS Academy Graduate: Machine Learning](#) | [Generative AI \(edX\)](#) | [Agile & Scrum Fundamentals](#) |

[Android Compose Camp \(GDSC\)](#) | [Industrial Approach to Java \(CSI\)](#)

Community: Active Google Developer Group member – **25+ codelabs** completed; Google Cloud Innovator; Hacktoberfest open-source contributor

Leadership

Photocircle RAIT

July 2024 – July 2025

Technical Head (Member since 2022)

Navi Mumbai, India

- Led technical operations of the college photography club, managing equipment, media workflows, and events.
- Conducted **3 workshops (75+ students)**, 4 photo walks, and 2 inter-college competitions, **raising participation 60%**.