IIT Bombay, Mumbai Maharashtra, India - 400076

Abhijat Bharadwaj

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Professional Experience

Teaching Assistant

Indian Institute of Technology Bombay

Aug 2023 – Nov 2023

Course: CS101, Computer Programming and Utilization

- Guided students in learning programming languages and concepts in C++ conducting 10+ lab sessions
- Awarded with "Excellence in Teaching Assistantship", troubleshot XServer and WSL setup for 200+ students

Full Stack Developer

Trubuddyy Solutions Pvt. Ltd.

Jul 2023 - Aug 2023

- Developed a mentor search system with best match sorting for using weighted fuzzy string matching
- Automated **Zoom** meet scheduling, **Whatsapp** and **SMS** reminders using **Twilio**, and **Stripe** Payments

Frontend Developer

Application Software Centre, IIT Bombay

May 2023 – Jul 2023

- Engineered a micro-frontend architecture enabling independent development teams to work for MyIITB
- Developed support for 5+ JavaScript frameworks, including Angular, React, and SystemJS using Single-SPA

Education

Indian Institute of Technology, Bombay

Mumbai, Maharashtra

Graduating: 2026

Dual Degree (B.Tech & M.Tech) in Electrical Engineering,

Minor Degree in Computer Science and Engineering

Relevant Coursework: Digital Signal Processing, Image Processing, Computer Vision, Advanced Image Processing, Communication Systems, Data Structures & Algorithms, Design & Analysis of Algorithms, Logic in Computer Science, Introduction to Machine Learning, Code Optimization for Object-Oriented Languages, Microprocessors, Digital Systems, Communication Systems-I, Probability and Random Processes, Markov Chains and Queuing Systems

Technical Projects

Mess-I: Mess Digitalization System | DevCom IIT Bombay

May 2023 – Present

- Led the development of the official mess management system of IIT Bombay with 10,000+ daily active users
- Deployed the system in 14 out of 16 hostels, in 20+ devices, recording 4,000,000+ meals and 16K+ users

MongoDB Google Drive Backups | DevCom, IIT Bombay

Jul 2024

- Orchestrated a Python library to save compressed and encrypted MongoDB backup files on Google Drive
- Implemented file hash (SHA-265) verification to ensure file integrity and prevent tampering

Java Program Analysis using Soot | Prof. Manas Thakur, IIT Bombay, CS6004

May 2024

- Programmed an analysis transformer using Soot framework to remove redundant null checks in Java code
- Recorded a performance increment of around 1400 ms after transformation using Eclipse OpenJ9 JVM

Position of Responsibility

Overall Coordinator

DevCom, IIT Bombay

Apr 2024 - Present

- Led a team of 30+ designers and developers to maintain and enhance IIT Bombay's digital infrastructure
- Resolved IP conflicts in servers by collaborating with Computer Centre, benefiting 10,000+ residents
- Upgraded Proxmox VE to version 8, ensuring better performance and reliability of servers and LXC containers

Skills, Interests & Extra Curriculars

Development:

Proficient: Dart, Flutter, Python, C++, React, JavaScript, Django, Flask, Micropython

Familiar: VHDL, TypeScript, NextJS, Angular, Vue, MATLAB, Bash JAVA, Soot, OpenCV, NumPy

Tools: Umami, Sentry, New Relic, Proxmox, Docker, Linux, Algolia, Elastic search, MongoDB, AWS, GCP

AI/ML tools: LLaMa-2, YOLO, FAISS, Chain-Lit, Langchain, Scikit-Learn, Torch, Keras

Extra Curriculars:

- Achieved 2nd position in inter-hostel stage play and street play competitions in academic year 2022-23
- Represented IIT Bombay in the dramatics contingent in the InterIIT Cultural Meet 5.0, scoring 2nd overall