# **ABHINAV LODHA**

+91 7014206208 | abhinav.lodha@plaksha.edu.in | GitHub | LinkedIn



### Education

**B.Tech** in Computer Science & Artificial Intelligence - Plaksha University, Mohali **CGPA**: 9.34 **12th CBSE** - Jayshree Periwal High School, Jaipur **Percentage**: 97.0% **10th CBSE** - Jayshree Periwal High School, Jaipur **Percentage**: 93.8%

2020

### **Work Experience**

#### ML Intern | ERTS Lab, IIT Bombay, Mumbai

Jun. 2024 - Jul. 2024

- Developed a scalable system capable of processing over 10,000 documents, improving efficiency by 50% for 25+ researchers.
- · Led end-to-end implementation of advanced NLP techniques like RAPTOR, addressing operational bottlenecks.
- Deployed a modular solution for advanced search and document generation on proprietary documents using containerized platforms.

### Software Development Intern | TaskLabs, Mohali

Dec. 2022 - Apr. 2023

- Led a team of 5 to design and launch a Chrome extension, adopted by 200+ users, to streamline task automation and improve productivity.
- Developed a website with a Django backend for automation tools leveraging AWS services like API Gateway and DynamoDB.
- Innovated and created online file converters using Python and LangChain, achieving a 40% speed improvement over conventional options.

## **Positions of Responsibility**

### Vice President | LEAP, AI Club of Plaksha

Sep. 2023 - Present

- Co-founded the club and drove its growth from 4 to 32 members, fostering a collaborative learning environment for AI and ML initiatives.
- Organized and led workshops on topics such as Classification and CNNs, and facilitated projects like AI Hangman and AI Mario, engaging an
  average of 100 participants.

Core Organizer | FitoorxPrayas, Plaksha University

Sep. 2024 - Nov. 2024

- Organized the university's first techno-cultural fest, working in a team of 3 to lead 35+ members in managing 21 events, coordinating with
  various clubs, and overseeing 12 independent stalls.
- Oversaw event logistics, ensured hospitality for 25+ judges, and facilitated seamless execution through meticulous planning and collaboration.

#### Emergent Technologist | UN Millennium

Sep. 2023 - Dec. 2023

- · Researched and implemented initiatives on child vaccination and menstrual health for local communities in Mohali.
- · Collaborated with a global network of peers on SDG projects, facilitating cross-cultural dialogue and knowledge exchange.

### **Projects**

### AutoParcel | Dr. Rucha Joshi, Plaksha University

Oct. 2023 - Present

- Developed a comprehensive Parcel Management Solution integrated with the university's database using NextJS framework and Python.
- Engineered features such as parcel reminders, parcel scanning, and advanced filters, contributing to a 50% increase in parcel logging speed.

Implemented authentication and parcel statistics, reducing uncollected parcels by 70% and enhancing tracking efficiency.

### OpticGym | Innohacks, KIET University

Apr. 2024 - Apr. 2024

- Developed an AR-based eye wellness app with real-time feedback, leveraging Unity AR foundation.
- Innovated hands-free digital eye checkups with voice recognition, incorporating AR Snell's chart for vision metrics.
- Integrated eye movement and blinking exercises using ARKit's blend meshes, reducing eye strain for 70% of users.

#### Insuliv | Innov8, JECRC University

Sep. 2023 - Sep. 2023

- Developed a diabetes healthcare mobile app integrated with Google Fit for real-time activity tracking, enhancing health monitoring.
- Engineered prescription OCR, and reminder alerts, achieving 95% OCR accuracy and optimizing medication adherence.
- Created generative lifestyle reports and food recommendation system, improving the user experience and simplifying medication tracking.

### **Achievements**

- Won the SP Dutt Award for Innovation and Impact for Nautilus One Development of a Low-Cost, Intelligent Autonomous Underwater Vehicle.
- Qualified in the Singapore Autonomous Underwater Vehicle Challenge 2025 (SAUVC), organized by IEEE OES Singapore.
- Grand Finalist in the e-Yantra Robotics Competition 2024 organized by IIT Bombay, selected from over 400 competing teams.
- Awarded The Plaksha Dean's List Award for 2022-2023 and 2023-2024, ranking in the top 5 of the student cohort across all disciplines.
- Secured the 1st prize of 70,000 INR at the 2023 JECRC Innov8 Hackathon, competing against 300+ participating teams.
- Secured the 1st prize at HackPlaksha Hackathon 2023 competing against 30+ participating teams.
- Secured the 2nd prize at Ashoka University's Decipher 2023, coding competition.

### Skills

Programming Languages: Python, C/C++, JavaScript, TypeScript, MATLAB

Full Stack Development: NextJS, PostgreSQL, Tailwind, Django, React Native, Google Cloud, AWS

Machine Learning: PyTorch, TensorFlow, LangChain, Llama Index

Others: Git, Linux, Docker, SolidWorks, Blender3D, AutoCAD, Arduino, Unreal Engine, Unity3D, Figma, Agile Methodologies

### **Publications**