

# Abir Dhar

Pune, India

abirdhar79@gmail.com — +91 7038368876

LinkedIn — GitHub — Portfolio

## Professional Summary

Versatile Software Engineer specializing in AI and Full-Stack Web Development, with hands-on experience building scalable solutions for IoT, document automation, and enterprise systems. Proven ability to reduce manual effort by up to 80% through intelligent automation and API-driven design. Adept at driving end-to-end product development using Python, Node.js, React, and ML frameworks.

## Technical Skills

**Languages:** Python, JavaScript (Node.js), C/C++, Java, SQL

**Frontend:** ReactJS, Angular, HTML5, CSS3, MUI, Vite

**Backend:** Node.js, Express, REST APIs, JWT

**Databases:** PostgreSQL, MongoDB, MariaDB

**AI/ML:** Scikit-learn, Google Doc AI, NLP, Data Extraction, Transformers

**Tools:** Git, Linux, Docker, Streamlit, Redux, ShadCN UI

**IoT & Protocols:** ESP32, RS485, RS232, SPI, I2C, Arduino, GSM Module

**Cloud & DevOps:** Firebase, NGINX (basic), Postman, VS Code

**Other:** Jira, Agile, SDLC, Parallel Processing, AI Agents

## Professional Experience

### Senior Software Developer

Innotronix — Remote

Mar 2025 – Present

- Led IoT-integrated platform development using ESP32, RS485/UART, and GSM protocols.
- Delivered enterprise dashboard and warranty systems for HPCL, IOCL, BPCL, and JIO/BP, reducing manual overhead by ~60%.
- Built MEAN stack applications with PostgreSQL, maintaining 99.9% uptime.
- Integrated AI modules for predictive maintenance using hardware usage analytics.

### AI Developer

Combat Solutions — Remote

May 2024 – Feb 2025

- Built AI document processing systems with Python and Google Doc AI, cutting manual entry by 70%.
- Created REST APIs and structured pipelines, improving data accuracy by ~35%.
- Deployed microservices and enhanced product scalability and performance.

### Research Assistant

NIT Durgapur

Aug 2023 – Jul 2024

- Conducted AI research on 6G wireless communication and co-authored 2 publications.
- Built ML models achieving 12% higher accuracy on wireless datasets.
- Mentored undergraduates on AI methodologies and research practices.

### IoT Intern

Exposys Data Labs & Verzeo

2021

- Developed IoT prototypes using ESP32, Arduino, and sensor integrations.
- Improved system response time and optimized embedded workflows.

## Education

### M.Tech, Next-Generation Communication & Networking

NIT Durgapur

2022 – 2024

### B.Tech, Electronics & Telecommunication Engineering

MIT Academy of Engineering, Pune

2018 – 2022

## Projects

### Entertainment App — entertainment-app-bice.vercel.app

Built a MERN stack application to browse movies/TV using TMDb API with Node.js backend and React + Vite frontend.

### **AI-Based Document Question Generator (DocuMind AI)**

Generated diverse questions from PDFs using NLP and parallel execution. Reduced processing time by ~40%.

### **LinkedIn AI Post Publisher**

Auto-generates and publishes posts from YouTube content using LLM agents and manager-approval workflows.

### **Resume Builder**

Built using React, Redux, MUI, and Vite. Offers real-time previews and multi-template support.

### **Full Stack Auth App**

Next.js + MongoDB app with secure JWT authentication and dynamic routing.

### **In-Vehicle Wireless Dataset Analysis**

Applied ML models on 6G datasets for signal analysis, improving accuracy in vehicular communication.