Abir Dhar

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LinkedIn — GitHub

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, 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
Sep 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.