Mohit Kumar Dey

AI Engineer — Automation Engineer — Full Stack Developer

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Summary:

Software Developer with hands-on experience in building **scalable backend systems, APIs, and AI-driven applications** using **Python, Java, and Node.js**. Strong foundation in **data structures, algorithms, OOP, and SDLC**, with practical exposure in building **full-stack apps**, **cloud deployments, automation, debugging, and testing**. Skilled in analyzing system issues, improving performance, and delivering clean, maintainable code. Eager to contribute to the vision of enabling seamless hybrid-cloud and AI transformation for global clients through innovation, collaboration, and continuous learning.

Education:

Chandigarh University	**2021 - 2025**
Bachelor Of Engineering in Computer Science Engineering	**CGPA:** 8.08

Experience:

Matrice AI   **Aug 2025 – Nov 2025**
AI Engineer Intern   *Remote*
- Designed and deployed AI-enabled automation systems using Python, LangChain, LLM APIs, and workflow orchestration tools, improving processing throughput by **40%** and enabling scalable, cloud-native operations.
- Built and delivered production-grade automation solutions integrating third-party services (messaging, mapping, email, and task management APIs), handling **1,000+ events per day** and reducing manual operational effort by **~90%.**
- Implemented event-driven, microservice-based architectures with real-time data ingestion, intelligent routing, and rule-based escalation logic, decreasing average incident resolution time by **45%** while maintaining **99.9% uptime**.
- Integrated monitoring and observability pipelines to track system health, latency, and failures, ensuring **95th-percentile response times under 2 minutes** and stable performance under production load.

Vensure Employer Solutions   **Sep 2024 - Jun 2025**
Data Engineer Intern   *Noida*
- Engineered automated **EDI** file processing pipelines (**834, CSV, Fixed Width**) using **C#, Python, SQL**, and **REST APIs**, processing **50k+ records/day** with **100% data accuracy and 95% automated test coverage** through **PyTest** and **N-Unit.**
- Developed and orchestrated secure cloud-based **SFTP** workflows **using Python, WinSCP, Jenkins**, and Cron jobs, increasing **transfer reliability by 35%** and **reducing downtime by 28%.**
- Enhanced **data integration** and **QA** frameworks with regex-based mapping logic and automated validations, decreasing defect rates by **22%** and improving **SLA** delivery time by **30%.**
- Collaborated with cross-functional teams to align data pipelines with enterprise architecture, ensuring **99% data delivery** compliance, observability, and KPI-driven performance monitoring.

Personal Projects:

AI-Powered Event Organizer   **July 2025 – Jan 2026**
- Developed a **full-stack AI-enabled event management platform** using **Next.js (React), Tailwind CSS, and shadcn/ui**, delivering responsive, production-ready user experiences with modern design patterns.
- Architected **secure, scalable backend workflows** with **Convex** and **Clerk authentication**, enabling real-time data handling, protected routes, and environment-driven configuration.
- Integrated **LLM-based AI features using Gemini API** and external media APIs to automate content generation and enrich event data, applying AI integration best practices within a full-stack system.

AI-Enhanced Fraud Detection Pipeline ◯ ⊕   **Feb 2025 – June 2025**
- Built a scalable pipeline for **fraud detection** on **transaction data** with **Python and Spark**; stored data in **PostgreSQL.**
- Trained **ML/DL** models (**Tensor-Flow, PyTorch**) and served them via **Flask APIs** in **Docker** containers on **AWS.**
- Implemented **RAG** pipeline using **LangChain** and **Gemini API**: and performed similarity search for anomaly detection.
- Orchestrated asynchronous scoring and alerts with **RabbitMQ**, achieving 95% detection accuracy and sub-second response times.

Real-Time Cryptocurrency Tracker ◯ ⊕   **Jan 2024 - May 2024**
- Built a **real-time full-stack crypto currency tracking platform** using **React 18, TypeScript, Express.js, PostgreSQL, and WebSockets**, enabling live price updates, watchlists, alerts, and market analytics.
- Designed and implemented **scalable REST APIs and real-time data pipelines**, integrating third-party crypto APIs, secure authentication, and efficient server-state management with optimized database access.
- Developed a **responsive, production-ready UI** with **Tailwind CSS, shadcn/ui, and Chart.js**, delivering interactive data visualizations and a performant, cross-device user experience.

Technical Skills:

- **Programming Languages**: Python, Typescript, JavaScript, Java, SQL, C++.
- **AI & ML**: Lang-Chain, LLM API's, RAG Pipelines, Lang-Smith, Lang-Graph, Tensor flow, PyTorch, Agentic AI
- **Backend, Databases**: Node.js, Nest.js, PostgreSQL, Rabbit MQ, Restful APIs., Express, MongoDB, Redis
- **Frontend & UI**: React, Next.js, HTML5, Tailwind CSS, Framer-motion, Three.js, Figma, GSAP

- **Cloud & Tools**: AWS (EC2, Lambda, S3), Docker, Postman, Git, Web Sockets, Performance Optimization, PyTest, Vite.js
- **Automation**: n8n, Make, Selenium, BeautifulSoup, Data Scraping(Clay, Apollo), Web Scraping (Playwright)
- **Soft Skills**: Analytical Thinking, Root-Cause Analysis, Debugging, Collaboration, Rapid Learning, Process Optimization.

Achievements:

- Achieved **Gold Medal (Top 5%)** in all India NPTEL's Internet of Things examination, organized by **IIT Kharagpur**.
- Awarded Intern of the Month in February 2025 due to successful automation of 3 internal workflows

Certifications:

- Introduction to Artificial Intelligence (AI) by IBM, Coursera
- Data Structures and Algorithms by University of California San Diego, Coursera
- Networking Basics by Cisco Networking Academy Cisco
- Network Support and Security by Cisco Networking Academy Cisco