Kewal Patel

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Software Engineer with nearly 3 years of experience developing enterprise web applications, backend services, workflow automation solutions, and AI-enabled business applications. Hands-on experience with ASP.NET Core, Node.js, Python, Angular, MySQL, and REST API development, along with practical exposure to integrating OpenAI APIs and AI-assisted development tools such as GitHub Copilot, ChatGPT, and Gemini. Skilled in building scalable applications, integrating third-party services, optimizing databases, and delivering business-focused software solutions.

AI Engineering Experience

- Integrated OpenAI GPT models into production applications for intelligent document processing and structured data extraction.
- Built LLM-powered workflows for PDF parsing, metadata extraction and JSON generation.
- Applied prompt engineering techniques to improve extraction accuracy across complex business documents.
- Leveraged AI-assisted development tools including GitHub Copilot, ChatGPT and Gemini to accelerate software delivery, improve code quality and streamline debugging.
- Experience integrating AI capabilities into enterprise web applications and backend services.

PROFESSIONAL EXPERIENCE

Mverse Technologies - Software Developer (Sep-2023 – Till date)

Samson ERP – Maritime Workforce & Operations Management
Tech Stack: ASP.NET Core (.NET), Angular, MySQL
AI & Development Tools: GitHub Copilot, Visual Studio, ChatGPT, Gemini
Key Achievements:

- Designed and developed enterprise-grade modules for a comprehensive Maritime ERP platform, digitizing the complete crew lifecycle from recruitment, onboarding and deployment through contract management, payroll, certification tracking and offboarding.
- Engineered scalable RESTful APIs using ASP.NET Core with a layered architecture, enabling secure, high-performance transaction processing and seamless integration between frontend and backend services.
- Designed configurable workflow engines supporting multi-level approval hierarchies, role-based access control, business validation rules and automated approval processes to improve operational governance.
- Developed centralized master data management for crew profiles, certifications, contracts, visa documents, training records and historical audit trails, ensuring regulatory compliance and data consistency.
- Optimized database design and backend processing to support large volumes of transactional data while improving application responsiveness and maintainability.
- Automated manual operational workflows, reducing paperwork, minimizing processing delays and improving collaboration across HR, Operations, Crewing and Finance teams.
- Integrated notification and status tracking mechanisms to provide real-time visibility into recruitment, document approvals, crew movements and operational milestones.

- Adopted AI-assisted software engineering practices using GitHub Copilot, ChatGPT and Gemini to accelerate API development, architecture design, code refactoring, documentation generation and debugging, improving overall development productivity.

Port Ledger Reconciliation System
Tech Stack: Python, MySQL
Tools & AI: VS Code (with Copilot), Gemini (Web), ChatGPT (Web)
Key Achievements:

- Designed an intelligent reconciliation engine capable of processing financial ledgers from 20+ ports with heterogeneous data formats.
- Built configurable parsing and normalization pipelines to transform diverse datasets into a unified reconciliation model.
- Implemented rule-based, fuzzy matching and AI-assisted validation techniques to improve identification of duplicate, missing and mismatched transactions.
- Automated reconciliation reports and exception analysis, reducing manual verification effort and improving financial accuracy.
- Developed a scalable framework capable of onboarding new port formats with minimal engineering effort.

Port Tariff Management & Data Fetcher - Web/Data Automation
Tech Stack: Python (asyncio, aiohttp), OpenAI API (gpt-4o-mini), MySQL
Tools: VS Code
Key Achievements**:**

- Engineered an AI-powered document processing pipeline by integrating OpenAI GPT-4o-mini to extract structured tariff information from complex, semi-structured PDF documents.
- Designed prompt engineering strategies to convert unstructured tariff documents into standardized JSON containing effective dates, charge categories, page references and contextual metadata.
- Built intelligent validation and post-processing workflows to improve extraction accuracy before persisting data into enterprise databases.
- Automated tariff ingestion across multiple global port authorities, significantly reducing manual document processing effort.
- Developed REST APIs exposing AI-extracted tariff data for downstream enterprise applications.

Vehicle Charging Route Optimizer - J M BAXI (Web)
Tech Stack: Angular, Nodejs, MySQ**L**
Tools: VS Code
Key Achievements:

- Built a scalable backend and REST APIs to manage EV trips, optimize routes, and store nationwide charging station data across multiple regions.
- Integrated real-time station availability with checkpoint scanning (within 5 km) to assist trucks and heavy vehicles, while also identifying gaps where new stations are required.
- Introduced secure user authentication, detailed trip logging, and optimized database performance to ensure reliability and scalability for high-volume data operations.

Terminal Operation System - Portal Infosystems (Web)
Tech Stack: Web - Angular, Nodejs, MySQ**L**
Tools: VS Code
Key Achievements:

- Architected and designed backend APIs using Node.js from scratch for a terminal operating system.
- Delivered features for ship registration, service scheduling, and management through admin and agent portals..
- Automated invoice generation by integrating with SAP to process invoice data seamlessly.
- Created APIs for transmitting passenger and crew data to the government's Sagar Setu portal for tax and manifest submission.

Shipping - Online Courier Management System (Web and Mobile)
Tech Stack: Flutter, Node.js, MySQL, Angular
Tools: VS Code
Key Achievements:

- Enhanced system scalability and core functionality to support client-specific requirements and future growth.
- Integrated third-party APIs for international shipment booking through aggregator platforms.
- Automated post-shipment workflows to reduce manual errors and improve operational efficiency.
- Developed a mobile application with barcode scanning to streamline parcel handling and tracking processes.
- Improved data accuracy and reduced manual entry errors by integrating barcode-based tracking mechanisms.
- Designed an AI-assisted identity verification module using OpenAI APIs to validate Aadhaar-related information and streamline customer onboarding workflows.
- Deployed the solution for 2 clients with continuous in-house enhancements and additional rollouts in progress.

Invocus - Invoice generator (Web)
Tech Stack Flutter, Node.js, MySQL, Angular
Tools: VS Code
Key Achievements:

- Engineered software to generate documents and invoices compliant with government standards for shipments handled by IATA Agents after booking and dispatch from courier aggregators.
- Incorporated backend functionalities using Node.js.
- Created data-driven SQL queries to support application operations.

Clinical Trail System (Web)
Tech Stack Flutter, Node.js, MySQL, Angular
Tools: VS Code
Key Achievements:

- Developed a web-based system to manage clinical trials, including patient enrollment, symptom tracking, and medication study workflows.
- Designed secure data handling with role-based access control, compliance with regulatory standards, and safeguards for sensitive patient information.
- Built backend APIs using Node.js to manage trial data, patient records, and study operations efficiently.

- Implemented structured data models and reporting features to support analysis of patient symptoms and treatment outcomes.
- Improved data accuracy and operational efficiency by digitizing and streamlining clinical trial processes.

EDUCATION

Year	Degree/Exam	Institute	CGPA/MARKS
2023	BE-Computer Engineering	Vasantdada Patil Pratishthan College of Engineering	8.60/10.00
2025	MBA	Manipal University Jaipur	Pursuing

ACADEMIC PROJECT

Smart Attendance Web Application Using Machine Learning and Ai

- Utilized the HOG (Histogram of Oriented Gradients) algorithm with OpenCV and dlib libraries for advanced facial pattern recognition.
- Incorporated features for facial detection, landmark detection, and feature extraction to identify unique facial patterns.
- Developed functionalities for user registration, enrolment in the facial recognition system, and management of the training dataset.

Online Chat application

- Designed and implemented a web-based chat application facilitating real-time communication between users.
- **Integrated** robust user authentication and SHA256-based data encryption to strengthen security and privacy.
- Deployed the application on the Microsoft Azure platform.

SKILLS AND EXPERTISE

AI & Machine Learning: OpenAI API, GPT-4o, Prompt Engineering, LLM Integration, GitHub Copilot, ChatGPT, Gemini, OpenCV, TensorFlow, PyTorch ,Keras , Computer Vision, DLIB, OCR, Structured Data Extraction
Programming: Core Java, Python, Node.js, MySQL, PHP, Django, SQLite
Knowledge: Angular, React.js

COURSE AND CERTIFICATION

- Pursing Master in Full Stack Web Development from Edureka.(Web Development, JS, JQuery, UI via Angular and React, Backend – Express and Node.JS, Managing data using Mogo DB)