

CURRICULUM VITAE

Jay D. Patel

AI/ML Enthusiast,
Full-Stack Developer

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Career Objective

Motivated and curious B.Tech IT student with a growing interest in **Artificial Intelligence and Machine Learning**, aiming to bridge academic learning with real-world applications. While exploring AI/ML fundamentals, I have also been actively developing my foundation in **full-stack web development**, with hands-on experience in building practical projects. I'm eager to grow further in both domains through internships, team collaboration, and continuous self-learning.

Professional Summary

- Skilled in **MERN stack development**, backend API architecture, and integration of basic **AI/ML APIs** like Gemini AI.
- Successfully completed a real-world internship in **Node.js** and **Express.js** development, with **MongoDB** for data modeling and operations.
- Proficient in building secure **RESTful APIs**, implementing **JWT authentication**, and managing backend services using **Postman** and **Git**.
- Experienced in deploying production-ready full-stack applications on **Render**, integrating tools like **Cloudinary**, **Multer**, and **Docker**.
- Demonstrated ability to apply modern backend practices including schema validation, containerization, and real-time AI-driven voice interfaces.

Technical Skills

- **Languages:** Python, Java, JavaScript, C, C++
- **Web development:** Node.js, Express.js, React.js, MongoDB, Redux, HTML, CSS, REST APIs, JWT, bootstrap, tailwind CSS, SQL
- **AI/ML Tools (Beginner):** Scikit-learn, Pandas, NumPy, Regression, Random Forest, Model Evaluation Basics
- **Tools:** Git, GitHub, VS Code, Postman, Cursor, Netlify, Versal, Render, Docker
- **Other Concepts:** Authentication, Routing, CRUD Operations, State Management

Professional Experience

Node.js Development Intern – Webito Infotech, Surat, Gujarat(5-weeks)

(June - July 2025)

- Built and maintained **RESTful APIs** using **Express.js**, with scalable routing and modular architecture.
- Implemented **JWT-based authentication** with access/refresh tokens and secure cookie handling.
- Designed **MongoDB schemas** with Mongoose, using advanced queries, aggregation pipelines, and schema relationships.
- Integrated **Cloudinary** and **Multer** for media uploads and assistant customization.
- Developed and deployed a full-stack **AI Virtual Assistant** using **Gemini API** and **Web Speech API**.
- Used **Postman** for API testing and applied input validation using **Joi**.
- Learned and implemented **Docker** for backend containerization, managing services with **Docker Compose**.
- Deployed apps on **Render**, managing environment configs and production error handling.
- Collaborated using **Git**, maintained version control, and documented project workflows.

Projects

Virtual AI Assistant with Voice Interaction & Gemini-Powered Responses [Link](#)

- **Tech Stack:** MongoDB, Express.js, React.js, Node.js, Google Gemini API, Web Speech API, Multer, Cloudinary
- Built a fully functional **virtual AI assistant** during my internship at Webito Infotech using the MERN stack.
- Integrated **speech recognition** and **text-to-speech** for real-time voice-based interaction.
- Used **Google Gemini API** to generate intelligent, human-like responses based on user queries.
- Designed a **customizable interface** with support for personalized assistant name, avatar, and branding.
- Developed smooth frontend interactions using React and state management for dynamic voice UI.
- Deployed the application on render for real-time demonstrations and project showcases.

Task Manager with AI-Based Task Categorization & Daily Email Reminders [Link](#)

- **Tech Stack:** Node.js, Express.js, MongoDB, JWT, EJS, CSS, Hugging Face API, Node-Cron, Nodemailer
- Built a full-stack **task manager app** with secure JWT auth and dynamic EJS-based UI.
- Integrated **Hugging Face API** for automatic task categorization and added **email-based OTP verification**.
- Scheduled daily task reminders using **Node-Cron** and **Nodemailer**.
- Deployed on **Render** with a working live demo for testing and presentation.

Inventory Management System

- **Tech Stack:** MERN Stack (MongoDB, Express.js, React.js, Node.js), Redux, JWT
- Built a full-fledged **role-based inventory system** to track raw materials, production, stock, and client orders.
- Implemented **JWT-based authentication** and **Redux state** management for real-time inventory updates.
- Included full **CRUD** operations, dashboard filtering, and form validation from scratch.

Loan Default Prediction System

- **Tech Stack:** Python, Scikit-learn, Pandas, NumPy, Random Forest, Matplotlib
- Developed a **machine learning classification** model to predict whether a loan applicant would default or repay.
- Performed **data preprocessing** including missing value treatment, label encoding, scaling, and train-test split.
- Used **Random Forest Classifier** due to its high accuracy on tabular datasets.
- Evaluated model performance using **Confusion Matrix, F1-score, ROC-AUC Curve**.
- Visualized results with **Matplotlib** for feature importance and model metrics.

Education

Name of Examination	School / Institute	University	Batch	% Score	
				SGPA/10	CGPA/10
B.Tech in Information Technology	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli, Surat, Gujarat	Uka Tarsadia University	2022-2026	1 st : 9.27	9.23(Till 6 th sem)
				2 nd : 8.91	
				3 rd : 9.77	
				4 th : 9.10	
				5 th : 9.33	
				6 th : 9.00	
H.S.C. with PCM	Sanskari Vidyalay, Kim, Surat, Gujarat	G.S.H.E.B	2020-2022	73.38	
S.S.C	Shree Kalyan Vidhyalay, Kalyanpura, Kadi, Gujarat	G.S.E.B	2018-2022	77	

Certifications

Generative AI Exchange Program – Hack2Skill (*Powered by Google Cloud – 2025*)

- Gained hands-on experience in prompt engineering, Gemini API, Vertex AI, multimodal AI, and Retrieval-Augmented Generation (RAG).
- Completed official skill badges including Prompt Design in Vertex AI, Gemini & Streamlit app development, and rich document inspection using Gemini Multimodality.

Placement Preparation – Apna College (Sigma 4.0) (*Pursuing*)

- Covered Data Structures & Algorithms using Java and core problem-solving techniques.
- Learned full stack development including HTML, CSS, JavaScript, React, Node.js, and MongoDB.
- Gained hands-on experience through projects, coding challenges, and interview preparation.

Python Engineer – MIMO e-Learning

- Covered Python essentials and core programming concepts.
- Learned functional and object-oriented programming paradigms.
- Gained experience in building scripts and working with modules & APIs.

Achievements

- **Consistently ranked in the top 10%** academically in the IT branch; earned admission through the **Tuition Fee Waiver (TFW)** scheme for outstanding academic performance.
- **Participated in Smart India Hackathon**, one of India's premier national-level innovation challenges.
- **Participated in TATTVAHACK 2K25**, a hackathon organized by **CGPIT in collaboration with August Infotech**.
- Secured **2nd Runner-Up** in the “**Fastest Coder First**” event at **SciClone 2K24**, hosted by CGPIT, UTU.

Personal details

Full Name:	Patel Jay Dilipbhai
Gender:	Male
Nationality:	Indian-Hindu K.P.
Date of Birth:	22 nd October 2004
Hobby:	Learning new skills, Music, Travelling etc...
Languages Known:	English, Hindi, Gujarati
Blood Group:	B +ve
Permanent address:	Nr.Seva Sahakari Mandali, Kalyanpura, Ta: Kadi, Dist: Mahesana, Gujarat, India -382165

I hereby affirm that all the information provided above is true, accurate, and presented to the best of my knowledge and belief.

Place:

Date:

Yours faithfully,
(JAY PATEL)