

Kathan Sunil Pathak

Phone: +1 (323)-772-7082 Email: kathanpathak11@gmail.com
[linkedin.com/in/kathanpathak](https://www.linkedin.com/in/kathanpathak) github.com/KP1104

Education

Loyola Marymount University, Los Angeles, California

Master of Science in Computer Science

Aug 2023 - May 2025

CGPA: 4.61/5.0

Pandit Deendayal Energy University, Gandhinagar, India

Bachelor of Engineering in Information and Communication Technology

Aug 2018 - May 2022

CGPA: 4.5/5.0

Work Experience

Graduate Research Assistant — Loyola Marymount University

Jan 2024 - Present

Kubishi Research Group (Software Development)

- Conducted advanced research on image generation automation, enhancing image processing capabilities through innovative AI tools.
- Integrated the ChatGPT OpenAI API to develop a streamlined interface for generating images, utilizing precise prompt engineering techniques, reducing manual workload by **40%**.
- Designed and implemented a dynamic prompt modification function using OpenAI's tools, improving accuracy and relevance in generated images by **25%**.
- Employed civit.ai to generate diverse images and leverage fine-tuned models, increasing image quality by **20%**.

Developer — Iage Solutions Pvt. Ltd

Jan 2022 - Jan 2024

Mobile Application (Software Development)

- Engineered a retail-focused mobile application by reworking an existing POS solution, reducing transaction processing time by **35%**.
- Implemented a robust API layer in Spring Boot, leveraging Spring Boot JDBC frameworks to implement complex business logic, reducing system crashes by **50%**.
- Designed and optimized user interfaces across both React Native and Flutter, improving cross-platform performance and reducing load time by **20%**.
- Implemented strong expertise in API development, UI/UX design, and system integration, contributing to streamlined inventory, stock, and sales management.

Machine Learning Engineer — Acute Informatics Pvt. Ltd

Jan 2020 - Dec 2021

GestureTunes Mobile Application

- Engineered a smart music application utilizing machine learning libraries, including TensorFlow and Keras, to implement a hand gesture recognition model (Hand Landmarks), achieving **90%** gesture recognition accuracy.
- Built a user-friendly interface in React Native, enabling users to control playback functions such as play, pause, rewind, and skip through various hand gestures, reducing manual controls by **30%**.
- Integrated the Spotify API, implementing OAuth for secure authentication and consuming API endpoints to enhance user interaction and music management.
- Demonstrated proficiency in machine learning, mobile application development, and API integration through this innovative project.

Developer — Acute Informatics Pvt. Ltd

Jan 2019 - Dec 2019

Netbanking Solution

- Implemented an online net banking solution with an API-based architecture using Java Spring, reducing data retrieval time by **40%**.
- Built the business logic layer in Node.js and Java, improving system performance by **35%**.
- Wrote PL/SQL queries for Oracle database integration, optimizing data handling and reducing execution time by **50%**.
- Converted SOAP API data to JSON format to build diverse services, improving communication efficiency and API response speed by **45%**.
- Designed and implemented REST API endpoints using Spring Boot and Node.js, adhering to best practices in API development.
- Published and integrated APIs for reliable data flow and access across the banking platform.

Skills and Technologies

Programming Languages: Java, React, React Native, Vanilla.js, Next.js, Angular.js, Node.js, HTML, CSS, Python, SQL, C, R, Flutter

Tools and Technologies: Linux, Git, MySQL, Oracle

DB, Docker, Kubernetes

Machine Learning: Data Analysis, Linear Regression, Logistic Regression, Ensemble Models, Decision Trees, Clustering, Classification

Projects

Loan Originating System (Software Development)

Aug 2023 - Nov 2023

- Designed a Loan Originating System(LOS) module focused on credit score prediction through intricate model optimization.
- Leveraged the resulting credit scores to fine-tune a complementary model, facilitating precise loan prediction and approval, reducing false positives by **22%**.
- Implemented various machine learning algorithms and functions and fine-tuned them with hyperparameters for better accuracy and precision.