Kathan Sunil Pathak

+1 (323)-772-7082 | kathanpathak11@gmail.com | linkedin.com/in/kathanpathak | https://github.com/KP1104

Education

Loyola Marymount University, Los Angeles, California | CGPA - 4.61/5.0

August 2023 - May 2025

August 2018 - May 2022

Master of Science in Computer Science

Pandit Deendayal Energy University, Gandhinagar, India | CGPA - 4.5/5.0

Bachelor of Engineering in Information and Communication Technology

Work Experience

Loyola Marymount University | Graduate Research Assistant

January 2024 - Present

Kubishi Research Group (Software Development)

- Conducted advanced research on image generation automation, enhancing image processing capabilities through innovative Al tools.
- Integrated the ChatGPT OpenAI API to develop a streamlined interface for generating images, utilizing precise prompt engineering techniques.
- Designed and implemented a dynamic prompt modification function using OpenAl's tools, improving accuracy and relevance in generated images.
- Employed civit.ai to generate diverse images and leverage fine-tuned models, advancing the capability for producing high-quality outputs.

lage Solutions Pvt. Ltd | Developer

Mobile Application (Software Development)

January 2022 - January 2024

- Engineered a retail-focused mobile application by reworking an existing POS solution, originally built with PowerBuilder for UI and Oracle for business logic.
- Implemented a robust API layer in Spring Boot, leveraging Spring Boot JDBC frameworks to implement complex business logic and enable seamless integration with third-party POS systems.
- Designed and optimized user interfaces across both React Native and Flutter, improving cross-platform performance and user experience.
- Implemented strong expertise in API development, UI/UX design, and system integration, contributing to streamlined inventory, stock, and sales management.

Acute informatics Pvt. Ltd | Developer

GestureTunes Mobile Application (Machine Learning Engineer)

January 2020 - December 2021

- Engineered a smart music application utilizing machine learning libraries, including TensorFlow and Keras, to implement a hand gesture recognition model (Hand Landmarks).
- 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.
- 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.

Acute informatics Pvt. Ltd | Developer

Netbanking Solution (Software Development)

January 2019 - December 2019

- Implemented an online net banking solution with an API-based architecture using Java Spring, enabling integration with Core Banking Solutions.
- Built the business logic layer in Node.js and Java, improving system performance.
- Wrote PL/SQL queries for Oracle database integration, optimizing data handling.
- Converted SOAP API data to JSON format to build diverse services, ensuring seamless communication between components.
- 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 DB, Oracle DB, Docker, Kubernetes

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

Projects

Loan Originating System (Software Development)

August - 2023 - November - 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.
- Implemented various machine learning algorithms and functions and fine tune with hyperparameters for better accuracy and and precision.