NIKHIL PATIL

patil.nikhil12@outlook.com | 8668289459 | Ratnagiri, Maharashtra, India
linkedin.com/in/nikhilpatil12 | github.com/nikhilpatil12 | nikpatil.com

Versatile Software Engineer with a Master's in Computer Science and hands-on experience across web, mobile, and infrastructure projects. Skilled in full-stack development, Flutter, Docker, and cloud-based deployment. Comfortable taking ownership across the stack — from designing responsive UIs to deploying containerized applications on VPSs.

Education

California State University • **Master of Science in Computer Science** **Jan 2022 – May 2024**
- **Courses:** Machine Learning, Web Engineering GPA: 3.7/4.0

University of Mumbai • **Bachelor of Computer Engineering** **Jun 2016 – Oct 2020**
- **Courses:** Data Structures, Algorithms, Data mining CGPA: 7.3/10.0
- **Co-founded a robotics club,** leading training sessions for juniors and organizing seminars on robotics and programming for high school students.
- **Directed teams ranging from 5 to 20 members** to successfully plan and execute programming events, demonstrating leadership and organizational skills in fostering a collaborative learning environment.

Skills

Languages: Dart, Python, C#, Java, C, JavaScript, SQL, YAML

Technologies: Flutter, Android development, MongoDB, Svelte Kit, REST APIs, Bootstrap, Amazon Web Services, Git, .NET, Docker, Raspberry Pi

Work Experience

CalTekNet | Los Angeles, CA, USA | Volunteer DevOps Engineer | Nov 2024 – Feb 2025
- **Deployed and maintained** Docker-Compose stacks for Portainer.io across multiple Ubuntu VPS instances, optimizing service orchestration via Docker Swarm.
- **Configured reverse proxy solutions** using Traefik and Nginx Proxy Manager to manage container routing and improve system scalability.
- **Performed Linux administration** including system updates, server hardening, and troubleshooting across distributed environments.

Gadre Infotech | Ratnagiri, India | Junior Developer | Feb 2020 – Feb 2021
- **Streamlined development** by implementing agile methodologies, enabling rapid bug fixes and smooth integration of new features within weekly release cycles.
- **Consistently resolved bugs** and performed quality assurance, leading to a 60% reduction in both tester and client-reported issues through daily proactive patch creation.
- **Enhanced a health-focused product** by introducing and optimizing COVID-19-related features, driving a 30% sales increase within a month.
- **Transformed client onboarding** by gathering requirements and implementing custom forms, resulting in a 40% boost in customer satisfaction.

Projects

Blaze Feeds – Smart RSS Reader | Flutter, OpenAI API, Gemini API, SQLite, REST APIs, Figma, Xcode

- Developed a cross-platform RSS reader app titled **"Blaze Feeds"**, published on both **Google Play Store** and **Apple App Store**, consistently rated **5 stars** by users.
- Integrated **AI-powered article summarization** using **OpenAI** and **Gemini APIs**, enabling users to consume key insights faster with concise summaries.
- Implemented **offline reading** with local caching using SQLite, ensuring seamless user experience without constant network dependency.
- Designed an intuitive and responsive UI with Flutter, focusing on personalized feed organization and interactive reading.
- Optimized network calls and data parsing for reduced load times and efficient memory usage across Android and iOS devices.

WIFI Vision: Using WIFI for human position estimation | Android SDK, TensorFlow, ESP32, Firebase

- Developed **WIFI Vision**, a mobile system for indoor human position estimation leveraging Wi-Fi signals, integrating deep learning, computer vision, and microcontroller technologies (ESP32).
- Engineered a **web application** for real-time monitoring of Wi-Fi signals and integrated **Firebase** for efficient data management, enabling seamless data storage and retrieval.
- Collected **RSSI (Received Signal Strength Indicator)** and **human pose data** to enhance accuracy, using an **on-device SQLite database** to manage data efficiently within the Android app.
- Designed and implemented a **custom model architecture** using **TensorFlow** to analyze the impact of human presence and movement on WiFi signals, enabling real-time human position tracking.
- Evaluated the system's effectiveness in practical environments, with a focus on **surveillance, security**, and **home automation** use cases, offering significant advantages over traditional sensor-based solutions by eliminating the need for additional hardware like wearables or cameras.

Steam Library Viewer | Svelte Kit, Express, Steam API

- **Architected** a secure **Express API** backend and a dynamic **Svelte Kit** frontend, both deployed and hosted on a **personal VPS**, to securely fetch and display data from the **Steam API**.
- Integrated custom **environment configurations** for API key management and endpoint security, ensuring safe and efficient data handling between the backend and Steam API.
- Developed the frontend to render Steam library data in real-time with optimized **state management**, offering a seamless user experience and fast, responsive updates.
- Configured both the frontend and backend on the VPS, ensuring **reliable and consistent performance** while handling multiple simultaneous user requests.

Chatbot using NLTK and Wikipedia API | Angular, NLTK, Flask, Wikipedia API

- **Developed** a conversational chatbot using **Flask** and the **Wikipedia API** to fetch real-time data, with **NLTK** for natural language processing and text-based data manipulation.
- Built a **responsive Angular frontend**, ensuring a smooth and interactive user interface for real-time conversations with the bot.
- Utilized **MongoDB** for efficient storage and management of user data and chat history, enabling improved performance, scalability, and data persistence.
- Deployed the system with a focus on performance and scalability, ensuring it could handle multiple simultaneous users and provide fast responses.

Interests

・Video games ・Movies ・Artificial Intelligence ・Motorcycles ・Camping ・Trekking