

Kamil Ilyas

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Summary

Software Engineer with a proven track record in full-stack web development, specializing in building high-performance SaaS applications, scalable backend systems, and responsive user interfaces. Expert in developing user-centric platforms, integrating third-party APIs (payment, domain, marketing, and voice systems), and implementing generative AI workflows. Strong engineering foundation with experience delivering scalable software across healthcare, e-commerce, and AI-powered platforms.

Education

FAST-NUCES

Bachelor of Science in Software Engineering

Aug 2020 - June 2024

Islamabad, Pakistan

Experience

Software Engineer

Thathal ITS

Aug 2024 - Present

- Implemented an automated domain provisioning and DNS configuration system using the **Namecheap API** and **Stripe**, enabling clients to search, purchase, and automatically map custom domains to their published websites.
- Architected campaign integrations for **Google, Meta, and TikTok Ads APIs**, leveraging AI to generate targeted ad keywords, campaign budget/performance forecasting, live analytics tracking, and direct ad editing from the dashboard.
- Developed an AI social media generator using **Apify** and **RapidAPI** for web scraping, combined with multimodal vision AI (**Gemini**) to analyze past post styles, color palettes, and headlines and generate matching graphic copy.
- Developed a website **SEO** analysis engine that crawls target URLs to audit page titles, heading hierarchies, schema markup, canonical tags, and page size/speed, returning structured JSON reports with priority fixes.
- Integrated the **Google Sheets API** to fetch and sync competitor advertising data, enabling users to track live campaign formats and keywords from the marketing interface.
- Integrated **PostHog** analytics to capture granular patient interactions, session behaviors, and demographics across user-created websites.
- Implemented secure user authentication via **Google OAuth** and engineered an interactive review generator that queries location APIs to output direct Google Review links and downloadable QR codes.
- Integrated a voice AI assistant using the **Vapi API** to handle patient phone inquiries, automate FAQs, and schedule dental appointments directly into the practice management calendar.

Projects

DentalShelter | *Next.js, Three.js, React Three Fiber, OpenRouter, Tailwind CSS*

Mar 2026 – Present

- Designed and developed a patient triage and diagnostic web application featuring an interactive 3D dental arch model rendered using **Three.js** and **React Three Fiber**, enabling patients to visually highlight affected teeth and navigate clinical symptoms.
- Integrated a clinical AI diagnostic engine powered by **NVIDIA Nemotron-VL** (via **OpenRouter**), enabling patients to upload dental scans or photos for automated visual triage assessments, symptom causes, and approximate treatment cost estimations.
- Integrated geolocation services to dynamically locate and display nearby dental clinics and emergency practices based on the patient's triage severity index.

Review Authentication System | *React, Python, MongoDB, AWS, Scikit-learn, NLTK*

Sep 2023 – June 2024

- Developed a trust-based rating platform using Machine Learning algorithms to identify and filter spam reviews, helping users make better purchasing decisions.
- Implemented sentiment analysis and aspect-based review categorization using Python and **NLTK** to analyze customer feedback and provide detailed product insights.
- Built product comparison and recommendation features using collaborative filtering, allowing users to compare similar products based on verified reviews.

Expertise

Programming Languages: JavaScript, Python, Java, C/C++, TypeScript, HTML, CSS

Frameworks & Libraries: React, Next.js, Node.js, Express.js, Flask, Tailwind CSS, Bootstrap

Databases & Cloud: PostgreSQL, MongoDB, MySQL, AWS (EC2, S3, Lambda), Docker, Kubernetes

Developer Tools: Git, Jenkins, VS Code, PyCharm, IntelliJ IDEA, Postman, Figma

Specialized Libraries: pandas, NumPy, scikit-learn, Matplotlib, OpenCV, NLTK, BeautifulSoup