

Ali Hassan Mughees

+92 301 1887825 | alihassanmughees@gmail.com | [linkedin.com](https://www.linkedin.com/in/alihassanmughees) | [github.com](https://github.com/alihassanmughees)

EXPERIENCE

Software Engineer

Oct 2023 – Present

DictaLabs

Lahore, Punjab

- vScrawl (Angular Web App & Flutter Mobile App): Built secure digital signature modules, integrated RESTful APIs for real-time signing workflows, and optimized UI/UX across web and mobile platforms.
- WizePDF (React Web App): Engineered a PDF toolkit delivering 8+ features (signing, annotation, watermarking, compression, merge/split) using React.js, TailwindCSS, Spring Boot microservices, and Python-based utilities.
- Certificate Lifecycle Management (React Web App): Developed modules for certificate issuance, renewal, and revocation with role-based access control and compliance monitoring.
- Document Viewer (React Web App): Designed drag-and-drop workflows, integrated signature capture logic (upload, draw, type), and implemented real-time synchronization with APIs.
- Enhanced application performance by 30% by optimizing change detection, asynchronous operations, and DOM rendering.
- Applied responsive design and custom styling principles to ensure consistent cross-device compatibility.
- Collaborated closely with backend teams to align UI functionality with business logic and ensure scalable architectures.
- Maintained high code quality, resolving over 80% of maintainability issues using ESLint and automated checks.
- Leveraged LLMs (ChatGPT, Copilot) through prompt-driven R&D to debug complex integration issues, accelerate prototyping, and optimize architectural decisions across multiple projects.

EDUCATION

Govt. College University

Bachelor of Science in Computer Science

Faisalabad, Punjab

Sep. 2019 – Oct 2023

Jinnah College of Science and Commerce

FSC - Pre Engineering

Gojra, Punjab

May. 2016 – June 2018

APPLIED AI & PROMPT ENGINEERING

Prompt-Driven R&D in Software Development | *ChatGPT, GitHub Copilot, OpenAI Playground*

- * Leveraged GPT-based tools (ChatGPT, Copilot) to debug integration issues, generate optimized code snippets, and accelerate prototyping during production development.
- * Applied structured prompting techniques (few-shot, iterative refinement) to improve accuracy of generated solutions for frontend workflows, API orchestration, and optimization tasks.
- * Conducted R&D experiments using prompts for architectural design validation and alternative implementation strategies, reducing turnaround time for complex features.
- * Explored Retrieval-Augmented Generation (RAG) workflows using LangChain and vector stores to ground LLM responses with application-specific documentation.
- * Developed Python scripts to automate testing of generated outputs, ensuring reliability and reproducibility of LLM-assisted workflows.

PROJECTS

vScrawl | Angular Web App | *Angular, TypeScript, Java, Spring Boot, REST APIs, MySQL* | app.vscrawl.com

- * Engineered a digital signature application employing cryptographic methodologies for secure and legally binding digital signatures.
- * Contributed to the conceptualization and implementation of core microservices, ensuring scalability, flexibility, resilience, and reliability.
- * Collaborated on seamless integration of RESTful APIs for real-time data updates and ensured consistency across services and the UI.

- * Performed rigorous testing and crafted automation test scripts to enhance testing efficiency and facilitate automated regression testing.
- * Enhanced application performance and responsiveness by optimizing key components and applying efficient state management techniques.

WizePDF | React Web App | *ReactJS, JavaScript, Tailwind, REST APIs* | wizepdf.com

- * Developed a web-based PDF toolkit delivering 8+ features including Sign, Watermark, Word-to-PDF, Lock/Unlock, Compress, Merge, and Split.
- * Implemented client-side document rendering and canvas processing for digital signing, watermark overlays, and page manipulations.
- * Integrated Spring Boot microservices for core processing (encryption, merging, compression) and Python-based utilities for document conversion.
- * Optimized file processing pipelines to ensure fast uploads, real-time preview, and instant downloads.
- * Develop secure password protection and removal workflows with validation and consistent cross-platform behavior.
- * Designed responsive UI with TailwindCSS, ensuring seamless performance on desktop, tablet, and mobile.
- * Deployed scalable architecture with API-driven services, enabling free access with no user registration.

Document Viewer | React Web App | *ReactJS, JavaScript, Tailwind, REST APIs, MySQL*

- * Designed and implemented a digital document signing application with support for both self-sign and multi-sign workflows.
- * Built a drag-and-drop document viewer with interactive annotation fields, including resizable and repositionable signature, name, and checkbox components.
- * Integrated a signature capture dialog supporting three input methods (Upload, Draw, Type), converting all signatures to base64 PNG for backend compatibility.
- * Dynamically loaded and rendered user signatures in annotation fields without layout distortion using canvas processing and responsive image scaling.
- * Leveraged React DnD for field interactions and controlled overlays, ensuring smooth UX and strict boundary adherence during document editing.
- * Implemented real-time backend communication for recipient management, workflow progress, and secure field persistence via REST APIs.

vScrawl | Mobile App | *Flutter, Dart*

- * Engineered a mobile application for digital signatures, leveraging Flutter's cross-platform capabilities for both iOS and Android devices.
- * Designed and implemented seamless UI/UX, ensuring optimal performance across devices and platforms, following material design principles.
- * Integrated backend for user authentication and real-time data synchronization, enhancing user experience and data consistency.
- * Implemented rigorous testing with unit and widget tests to ensure code reliability and stability across different device configurations.

TECHNICAL SKILLS

Languages: TypeScript, Dart, JavaScript, HTML/CSS, PHP, C/C++

Frameworks: Angular, Flutter, Spring Boot, React.js, WordPress, Material-UI

Developer Tools: VS Code, Android Studio, IntelliJ, GitHub, Jenkins, Postman, MySQL

LLM & AI Tools: Prompt Engineering (few-shot, iterative refinement, task-specific prompts), ChatGPT, GitHub Copilot, OpenAI Playground, AI-assisted debugging and prototyping

Libraries: Angular CLI, RxJS, Angular Material, NgRx, Tailwind, Bootstrap, Quill, DOMPurify