Muhammad Tayyab Asghar

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github.com/tayyabasghar

Experience

Full-Stack Engineer — June 2024 – Present
Freelancing — Remote, Worldwide

- Developed scalable web applications using Angular and React, TS, improving performance and maintainability.
- Designed and implemented data visualization dashboards, enhancing analytics accessibility for business users.
- Integrated AI model for interactive product documentation chat, enhancing accessibility and user experience.

Software Engineer — Sep 2024 – Nov 2024
Ensemble Technologies — Remote Contract, CA

- Developed and delivered the desktop app using Electron.js, ensuring **100% cross-platform compatibility**.
- Designed and implemented a **local file system** enabling users to **create and edit applications offline**, seamlessly synchronizing data upon internet reconnection through **Firestore Cloud Functions**.
- **Achieved 30% test coverage** for **Firestore Cloud Functions** using Jest and implemented the repository pattern to improve code organization.
- **Integrated Git support**, enabling code storing on repository management services like **GitHub** and **Bitbucket**.

Software Engineer (Outsourced by Rolustech) — Jun 2022 – May 2024
LexCheck — Remote, Pakistan

- **Lead** the revamp of the LexCheck app, enhancing UI/UX and performance, leading to a **20% increase in sales**.
- Transformed Figma designs into pixel-perfect UI components, collaborating with the UI/UX team.
- **Implemented Role-Based Access Control (RBAC)** with user-specific dashboards and data visualizations, improving access control and security.
- **Reduced bundle size by 10%**, implemented **lazy loading, fixed memory leaks, and removed redundant libraries** to reduce initial load time and **optimize performance by 35%**.
- Strengthened security by enforcing **strict CSP headers, securing sensitive data with Web APIs**, and ensuring **SOC 2 Type II compliance**.
- Collaborated in the migration of cloud infrastructure from **AWS to Azure DevOps**, optimizing performance and reducing **operational costs by 30%**.

Education

University of Engineering and Technology — Lahore, PK
Bachelors in Computer Science — Oct 2018 – March 2020

Projects

AgentTube — github.com/TayyabAsghar/AgentTube

- AgentTube is an AI-powered content creation assistant that analyzes YouTube videos and enhances content generation using advanced AI models like Claude and Gemini. By providing a video link, users can generate transcripts, receive AI-suggested video titles, create improved or alternative scripts, and generate AI-powered thumbnails using OpenAI.
- Tech Stack: Next.js, Tailwindcss, shadcn/ui, AI SDK Vercel, Gemini AI, Convex, Clerk, Vercel

ChatPDF — github.com/TayyabAsghar/ChatPDF

- ChatPDF is a Next.js app that lets users upload PDFs and interact with them via AI-powered chat. Using Langchain, Pinecone, and Google Gemini AI, it enables question answering, key information retrieval, and content summarization seamlessly.
- Tech Stack: NextJs, Tailwindcss, shadcn/ui, Firebase, Pinecone, LangChain, Gemini AI, Cloudinary, Clerk, Vercel

Technologies

Backend: Node.js, Express.js, Nest.js Swagger, MSSQL, MongoDB, Firestore, Rest API
Frontend: Angular, Next, React, Electron, JS/TS, HTML/CSS, Sass, JEST, Storybook
Cloud Technologies: Azure DevOps, AWS, GitHub Actions, Vercel
Libraries: Redux, RxJs/NgRx, Material UI, Tailwindcss, shadcn/ui, Ant Design, React-Query
Tools/Methodologies: Figma, Jira, Azure Boards, Github Boards, Agile, Kanban, Git, Github, BitBucket