About

A passionate Software Engineer with a strong foundation in backend development and solid expertise in frontend technologies. My core strength lies in the MERN stack, backed by 2 years of hands-on experience. In addition, I specialize in building AI-driven chatbot solutions for Web2 businesses, leveraging cutting-edge frameworks like LangChain, LangGraph, and CrewAI. Currently, I am actively expanding my skills by learning and implementing advanced AI solutions using these industry-leading tools.

Work Experiences

Software Engineer (Team Lead) — *Netixsol, Faisalabad, Pakistan* (Aug 2024 – July 2025)

Associate Software Engineer — *Netixsol, Faisalabad, Pakistan* (Sep 2023 – July 2024)

MERN Stack Intern — *Netixsol, Faisalabad, Pakistan* (Jun 2023 – Aug 2023)

Junior React Developer — *GamicaCloud (Panaverse Initiative)* (2022 – 2023)

Education

- **Duration/Year of Graduation**: 2019 – 2023
- **Degree**: Bachelor of Science (BS) in Software Engineering
- **Institution**: Government College University, Faisalabad

Skills & Technologies Overview

Languages: JavaScript, TypeScript, Python
HTML5, CSS3, JSX, Javascript, React.js, Next.js, Redux, TailwindCSS, Bootstrap, MUI
Node.js, Express.js, NestJS
MongoDB, Firebase, PostgreSQL
Postman, Docker, Git
Jest, Mocha, SuperTest
AI/GenAI: LangChain, LangGraph, CrewAI

JavaScript

- Understanding of ES6+ features (arrow functions, destructuring, spread/rest operators, async/await).
- Understanding of event loop, and the call stack.
- Strong grasp on asynchronous programming: Promises, `async/await`, Fetch API.
- DOM manipulation, event delegation, and browser rendering behaviors.

- Knowledge of module systems (CommonJS, ESModules).

TypeScript

- Strong typing system: interfaces, types, enums, generics
- Integration with React and Node.js.
- Configuring tsconfig, strict type-checking.
- Creating reusable and safe libraries with TypeScript.

Python

- Strong understanding of Python's standard library.
- Experience with asynchronous programming using `asyncio`.
- Good knowledge of REST APIs using Flask or FastAPI.
- Used python in langgraph, langchain

Frontend technologies

HTML5 / CSS3

- Semantic HTML, accessibility (ARIA), SEO considerations.
- Modern CSS: Grid, Flexbox, transitions, animations.
- BEM methodology, responsive design with media queries.

JSX / JavaScript (Frontend)

- Writing efficient JSX, conditional rendering, dynamic classNames.
- Managing events, refs, and synthetic event system.

React.js

- Strong grasp of React principles: V-DOM, reconciliation, state/props, hooks.
- Mastery of React Hooks: `useState`, `useEffect`, `useContext`, `useReducer`, `useMemo`, `useCallback`.
- Lifecycle methods in class components.
- Custom hooks and component patterns (HOC, Render Props).
- Context API and performance optimization (memoization, lazy loading).
- Error boundaries, suspense, and concurrent rendering.
- Experience with data management libraries like Redux, redux toolkit, zustand etc

Next.js

- Routing system, dynamic/static routing, file-based routing.
- Server-side rendering (SSR), static generation (SSG), ISR.
- API routes and backend functions.
- Image optimization, middleware, and `getServerSideProps`, `getStaticProps`.
- Understanding of Nextjs 15 features

Redux

- Application-level state management.
- Actions, reducers, middleware (Redux Thunk, Redux Saga).
- Toolkit usage: slices, RTK Query.
- Store setup and integration with React.

TailwindCSS

- Utility-first CSS, component composition.
- Responsive design, dark mode, theming.
- Customizing design tokens (config file).
- Combining with HeadlessUI or native components.

Bootstrap / MUI

- Usage of Bootstrap grid system, utility classes.
- MUI's component API, theme customization, dark mode.
- Building responsive and accessible interfaces.

Backend technologies

Node.js

- Event loop, async I/O, process management.
- Creating REST APIs, handling streams, file system access.
- Working with buffers, child processes.

Express.js

- Routing, middleware chaining, error handling.
- Session management, security practices (helmet, CORS).
- Structuring large scale APIs, MVC pattern.

NestJS

- Modular architecture, dependency injection.
- Decorators, interceptors, guards, filters.
- Integration with TypeORM/Mongoose.
- Building scalable, testable REST and GraphQL APIs.

Databases

MongoDB

- NoSQL schema design, document relationships.
- Aggregation pipeline, indexing, performance tuning.
- Mongoose schemas and models.

Firebase

- Realtime Database, Firestore, Authentication.

PostgreSQL

- Advanced SQL queries, indexing, joins, transactions.
- Schema design, constraints, and stored procedures.

Tools

Postman

- API testing, automation, environment setup.

Docker

- Writing `Dockerfile`, using Docker Compose.
- Containerizing full-stack apps.
- Volume management, multi-stage builds.

Git

- Branching strategies (Git Flow), rebasing, cherry-picking.
- CI/CD integration basics.
- Writing clean, descriptive commit messages.

Testing Tools

Jest

- Writing unit, integration, snapshot tests.
- Mocking modules and functions.
- Code coverage reports.

Mocha

- Setup with Chai.
- BDD/TDD style testing.
- Asynchronous test handling.

SuperTest

- HTTP assertions for Express/Nest APIs.
- End-to-end API testing.

AI SKILLS

LangChain

- Chaining LLM calls and tools.
- Agents, memory management, prompt templates.
- Integration with OpenAI, Cohere, Anthropic, Pinecone.

LangGraph

- Building stateful LLM workflows using graphs.
- Node/edge design and interactivity in conversational flows.

OpenAI Agents SDK

- Multi-Agent collaborations
- Agents, Handoffs, Guardrails, Tracing Concepts

Interests

I love to stay up-to-date with the latest tech especially the AI revolution to keep me motivated.

Other Skills:

1. Leading team skills
2. Excellent Communication
3. Time management skills
4. Good listener
5. I grab things fast and always try to work on my weak parts

Projects:

Below are my projects that I have worked on. These projects are which I have done in learning and professional experience.

1. **SKILLMATCH (A Recruitment Platform By Netixsol)**
   - A platform for HR departments that can hire candidates effortlessly. They can create assessments for their jobs, can post jobs on the platform. Candidates can come apply on jobs and take companies job related assessments. Recruiters can see each candidate's CV score according to the job descriptions. Recuiters can create questions also using AI in bulk.
   - I lead this project with a team 4-5 members. I worked mostly on its backend workflows.
   - **Tech stack**: Nextjs, Nestjs, Mongodb, Tailwind CSS, MUI, Python for AI.
   - **live link:** https://www.skillmatch.tech/
2. **Statgpt By Netixsol**
   - StatGpt is a chatbot that can answer user queries about these sports(NBA, AFL, AFLW, UFC, CRICKET) in a conversation manner.
   - I worked on this project using langgraph. Its workflow is this it gets the user question and make an sql query and get the information from the postgresql database and then reponds the user according to their question.
   - **Tech stack**: Python, Langgraph, Langchain, Postgresql
   - Live link: https://stage.statbreak.com/stat-gpt

3. **TODO APP (Vanilla JS only)**
   - A simple todo app built using javascript to test the javascript logic. In it you can read your todos, add them from the fields and even edit and delete them.
   - **Tech stack**: HTML5, CSS3, Javascript
   - **Project github link:** https://github.com/ehtashamtoor/Todo-app-Vanilla-JS
   - **Project live link:** https://todo-appjs.surge.sh/
4. **Coin Flip Home page Design(Responsive)**

- A betting platform using different digital coins.
- **Tech stack:** nextjs, typescript, tailwindCSS
- **Project github link:** https://github.com/ehtashamtoor/CoinFLip
- **Project live link:** https://coin-flip-jade.vercel.app/

5. **Expense Manager**
   - Monitor your balance, track your expenses and income effortlessly, and achieve financial clarity. Add transactions with ease using intuitive input fields. Take charge of your financial journey today and use our Expense Tracker App for a smarter approach to managing your money.
   - **Tech stack**: ReactJs, Redux
   - **Project github link:** https://github.com/ehtashamtoor/expense-manager
   - **Project live link:** https://exxpense-manageer.surge.sh/

6. **Covid 19 Tracker**
   - Get in-depth information about the total cases, recovered cases, and unfortunate deaths for each selected country in specific timeframes.Dynamic Bar graph display how the virus spread, the recovery trends, and the unfortunate loss of lives over time.
   - **Tech stack**: ReactJs, RestAPI
   - **Project github link:** https://github.com/ehtashamtoor/covid19tracker/
   - **Project live link:** https://covid19trracker.surge.sh/

7. **Netflix Clone Website**
   - Built with Next.js, Tailwind CSS, Firebase, and TypeScript, this app brings you a seamless streaming experience like never before. This app gives you trailers of the movies as fetched from the API. Just sign in to website with any email and see movie trailers on it.
   - **Tech stack:** Nextjs, RestAPI, tailwindCSS, Firebase, typescript, Recoil
   - **Project github link:** https://github.com/ehtashamtoor/Netflix-clone-main
   - **Project live link:** https://netflix-clone-main-alpha.vercel.app/

Links

Email: ehtashamtoor50@gmail.com
Portfolio: https://ehtasham-portfolio.vercel.app/
LinkedIn: https://www.linkedin.com/in/ehtasham-toor-3865b317b/

Github Profile Link: https://github.com/ehtashamtoor