

# Hammad Afzal

## Senior Software Engineer

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**Senior Software Engineer** with over **5 years of experience** in building scalable full-stack solutions. Proven expertise in leading teams, integrating AI technologies (OpenAI, Vertex AI), and delivering high-performance applications using modern tech stacks. Skilled in collaborating with global teams to solve complex problems and drive innovation.

### SKILLS

<b>Programming Languages:</b>	JavaScript, TypeScript, Golang, Python
<b>Frameworks / Libraries:</b>	ReactJS, React Native, NextJS, NestJS, Node.js (Express, Fastify), Gin, Flask, Django, NuxtJS, Laravel
<b>Tools / Platforms:</b>	Visual Studio Code, GitHub, Bitbucket, Git, Postman, AWS, Docker, Redis
<b>Databases:</b>	MongoDB, MySQL, PostgreSQL, DynamoDB, Firebase
<b>Cloud Services:</b>	AWS Lambda, AWS ElastiCache, AWS DynamoDB, AWS SQS, AWS S3, AWS API Gateway

### EXPERIENCE

#### Senior Software Engineer

June 2023 - Present

*Pyflow Labs, UAE (Remote)*

- Led a team of engineers and managed the entire development process for multiple projects, from planning and design to deployment and maintenance, ensuring high-quality and scalable solutions.
- Integrated OpenAI and Vertex AI APIs to implement AI-driven features such as chatbots, prompt engineering, and image generation, enhancing platform functionality.
- Designing scalable architectures and integrating APIs for Magento, SFCC, AWS SDK, and Auth0, leveraging DynamoDB, ElastiCache, and SQS to optimize performance in microservices.
- Managing CI/CD pipelines with Bitbucket, overseeing deployments on AWS and quickly applying hotfixes to ensure smooth production rollouts.
- Mentored junior developers and conducted code reviews to foster a collaborative and high-performance team culture.

#### Software Engineer

Aug 2021 - May 2023

*Foomotion, San Francisco, US (Remote)*

- Developed core UI and functionalities for a supply chain management system (web & mobile) using React, React Native, and Redux.
- Enhanced security and admin control by implementing Stripe for payments, Laratrust for role management, and Nova for an admin panel in a Real Estate Growth Management Application.
- Developed a CRM for an in-house product, streamlining sales lead management and HR recruitment processes.
- Improved software quality through integration testing, debugging, and unit tests with PHPUnit, enhancing performance and boosting reliability.

#### Associate Software Engineer

July 2019 - July 2021

*Techreacher, London (Remote)*

- Contributed to intuitive UI designs, implemented key functionalities, and integrated APIs to streamline processes and enhance user experience.
- Led the UI/UX design and development of the Darzi Web App, creating an intuitive interface and implementing key functionalities to streamline order management processes.
- Developed a highly accurate Inheritance Calculator Web App using HTML, CSS, Bootstrap, and JavaScript, ensuring precise calculations and a responsive interface.

### PROJECTS

#### Anara.ai

- Integrated **OpenAI API** to create and manage user threads, optimizing performance by storing user chats in **Firebase** to reduce redundant API requests.
- Debugged and resolved issues related to assistant prompts and tools, ensuring seamless functionality and an enhanced user experience.
- Designed and implemented a **Redux store** to manage feature-wise data and API calls, improving application efficiency by caching slices to minimize unnecessary API requests.
- Fixed UI issues in **React**, resulting in a smoother and more responsive user interface.

## Spreafilms AI

- Integrated **OpenAI** for prompt refinement and post-generation, leveraging **cosine similarity** to filter and deliver the highest-quality posts to users.
- Utilized **Vertex AI's image-generation model** to create visually appealing images, implementing a scoring system based on **sharpness**, **resolution**, and **CLIPScore** to select the best outputs.

## Smart Merchandiser

- Developed microservices and integrated third-party APIs (**Magento and SFCC**) using Fastify (Node.js), while leveraging **DynamoDB** and **AWS Lambda** to build efficient and scalable backend solutions.
- Contributed to both front-end and back-end development with **React** and Fastify (TypeScript), fixing front-end bugs, implementing API integrations, enhancing platform functionality, and ensuring a seamless user experience.
- Configured CI/CD pipelines and managed AWS deployments to enable efficient, reliable, and streamlined production rollouts.

## Pudgy Penguins

- Designed and developed the **MVP backend** from scratch using **NestJS**, delivering APIs for player actions and real-time leaderboard updates.
- Transitioned the backend to **Golang** with **WebSocket** and caching mechanisms, significantly improving scalability and performance.
- Designed and implemented multiple in-game features, including **reward systems**, **trait customization**, and **fishing mechanics**, enhancing player engagement and experience.
- Utilized **WebSocket handlers** for real-time interactions and managed data storage using **PostgreSQL** for static data and **DynamoDB** for player game profiles.

## Westend Connect

- Designed the database schema in PostgreSQL; developed backend APIs in Golang for an Artwork Fraud Detection platform, ensuring a robust and scalable system architecture.
- Created a verification service to validate artwork tags using 424DNA, enhancing security and trust within the platform.
- Built a React Native Android app enabling users to write and read N-tags for each artwork.

## Tetheredart

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## Harvey Beef

- Developed a Supply Chain Management System (Web and Mobile) using React, React Native, Redux, and Cypress, integrating Stripe for seamless payment processing.
- Engineered efficient system designs while contributing to testing, debugging, and refactoring processes to ensure high-quality, reliable applications.

## Procuracon

- Developed UI Design for features and functionalities, Create Restful API's in Laravel, Laratrust for roles management, Nova for Admin Panel, Stripe Integration and Integrate Restful API's with Redux.

## EDUCATION

### BS (Hons.) Computer Science

FAST NUCES

Aug 2017 - July 2021

Islamabad, Pakistan

- Volunteered in the computing society for hosting web development seminars.
- Took part in several code and app development competitions.