Abdullah Al Mamun

Full Stack Developer

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Professional Summary

Full-Stack Software Engineer with 4+ years of professional experience building production web applications using React.js, Next.js, TypeScript, Node.js, Python, and SQL. Experience spans responsive and accessible interfaces, REST APIs, data modelling, automated testing, and cloud deployment. Hands-on AI application work includes conversational tutoring agents, tool calling, prompt development, agent evaluation, and automated video generation.

Technical Skills

Languages — JavaScript (ES6+), TypeScript, Python, SQL, Java, C, C++
Frontend — React.js, Next.js, Vue.js, React Native, Redux Toolkit, Zustand, HTML5, CSS3, Sass/SCSS, Tailwind CSS, responsive design, semantic HTML, accessibility (WCAG)
Backend & APIs — Node.js, Express.js, FastAPI, Django, REST APIs, JWT, OAuth 2.0, authentication and authorization
Databases — PostgreSQL, MySQL, MongoDB, Redis, data modelling, schema design, query optimization, caching
AI & LLMs — OpenAI API, Google Gemini, ElevenLabs AI Agents, conversational AI, tool calling, prompt engineering, agent evaluation
Cloud & Development Tools — AWS, Azure, Docker, GitHub Actions, CI/CD, Git, Vite, Webpack
Testing — Jest, Cypress, Postman, unit testing, functional testing, API testing, cross-browser testing
Development Practices — Agile/Scrum, code reviews, requirements analysis, technical documentation

Professional Experience

Full Stack Developer, *Clio* 12/2025 – Present

- Developed and enhanced full-stack features for Clio's legal practice management platform, supporting matter management, document workflows, billing, and payments.
- Built reusable React.js and Next.js components using TypeScript, Tailwind CSS, and SCSS/SASS, applying responsive layouts, semantic HTML, and accessibility practices.
- Developed backend functionality with Python/FastAPI and Node.js/Express.js, integrating REST APIs, JWT-based authentication, and OAuth 2.0 flows for protected application workflows.
- Modelled PostgreSQL schemas and optimized SQL queries, incorporating Redis caching to support efficient data retrieval and application performance.
- Implemented billing validation and total recalculation, using PostgreSQL transactions to save bills and line items atomically. Added HTTP 409 conflict responses and frontend recovery that preserved user selections.
- Tested frontend components and API integrations using Jest, Cypress, and cross-browser checks, identifying and resolving functional and integration defects.
- Supported containerized builds and deployments on AWS and Azure using Docker and GitHub Actions, contributing to CI/CD workflows for development and production releases.

Junior Frontend Developer, *FutureTalk Inc.* 07/2024 – 11/2025

- Built responsive, accessible interfaces for a conversational AI tutoring agent powered by ElevenLabs, using React.js, Next.js, and TypeScript to present agent responses through lesson slides and video previews.
- Integrated ElevenLabs and WebRTC for real-time voice conversations, handling microphone permissions and browser-based audio interactions.
- Managed conversation events and assessment state with Zustand, synchronizing agent-driven interface updates and asynchronous REST API interactions across learning workflows.
- Implemented agent tool calling by creating and registering tools for lesson delivery and assessment recording, connecting agent actions to application functionality.
- Designed and versioned prompts to guide teaching, quizzes, learner assessment, and chapter progression, including when to advance or repeat a chapter.
- Evaluated agent responses and tool behaviour across tutoring sessions. Tested frontend workflows with Cypress and API integrations with Postman, troubleshooting functional and cross-browser issues.

Full Stack Engineer, *DXC Technology* 01/2021 – 02/2023

- Developed news-publishing and e-commerce applications using React.js, Next.js, Node.js, Express.js, PostgreSQL, and MongoDB.
- Built server-rendered pages and administrative interfaces for article categorization, content management, and publishing workflows.
- Implemented e-commerce features and REST API integrations for product discovery, quote requests, order tracking, and delivery updates.
- Integrated Stripe to support card payments, Apple Pay, and Google Pay within the e-commerce application.
- Optimized SQL queries, backend API logic, and caching to improve response times for targeted application endpoints.
- Expanded Cypress coverage and Postman API checks across publishing, ordering, payment, and delivery workflows, helping reduce recurring post-release defects.
- Collaborated with developers, QA engineers, and business stakeholders on requirements analysis, code reviews, debugging, and production issue resolution throughout Agile/SDLC delivery.

Projects

AI Video Generation Platform, *Python, Gemini, ElevenLabs, Pexels, Shotstack, FFmpeg, Docker*

- Built and Dockerized an AI video generation platform that automated idea generation, scripting, media sourcing, narration, and rendering, reducing manual production work.
- Integrated Gemini, ElevenLabs, Pexels, and Shotstack APIs with fallback handling and a responsive review interface to support reliable video rendering.

Property Management Platform, *React.js, Next.js, Node.js, Express.js, MongoDB, REST APIs*

- Designed MongoDB schemas and RESTful endpoints with Node.js/Express.js, and built a responsive React/Next.js frontend for property listings, tenant management, and CRUD workflows supporting 100+ test property records.

Education

Ontario Graduate Certificate — Full Stack Software Development, *Lambton College* 12/2024 | Toronto, ON

Bachelor of Science — Computer Science & Engineering, *East West University* 07/2021 | Dhaka, Bangladesh