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SKILLS

TypeScript, JavaScript, Node JS, React JS, Express JS, jQuery, Java, JSP Servlet, PHP, HTML, CSS, Tailwind, Supabase, SQL, Git.

WORK EXPERIENCE

Blok

Lead Backend Engineer

Feb. 2025 – Present

Remote - (Chicago Based)

- Designed and implemented a scalable backend architecture for a social media platform, consisting of over 50+ modular files organized into controllers, middleware, routers, and services, ensuring maintainability and scalability.
- Developed 20+ RESTful API endpoints for core features such as post creation, reactions, comments, voting and notifications, enabling seamless user interactions and real-time updates.
- Integrated advanced validation mechanisms using Zod schemas across 10+ modules, ensuring data integrity and reducing runtime errors by 40%.
- Implemented robust middleware layers for JWT authentication, rate limiting, and error handling, enhancing application security and reducing unauthorized access attempts by 50%.
- Designed and implemented notification systems with support for push notifications, socket-based real-time updates, and in-app notifications, improving user engagement by 25%.
- Built a dynamic post feed system with pagination, filtering, and sorting capabilities, capable of handling 10,000+ posts efficiently.
- Integrated AI-based content scoring using ChatGPT for post analysis, categorization, and scoring, improving content quality and user experience.
- Implemented user interaction features such as saving, reporting, and blocking posts, with 100% test coverage for critical functionalities.
- Documented the entire API using Swagger, providing clear and comprehensive documentation for developers, reducing onboarding time by 50%.

Reve Systems

Dec. 2022 – May. 2023

Full Stack Software Engineer

- Worked as a Full Stack Engineer to build office management tools for the 150+ Parliamentary Committees of Bangladesh National Parliament.
- Managed and supervised a team of three Junior Engineers, ensuring the timely delivery of user feedback and bug fixes well in advance of the project deadline by a period of 2-3 months.
- Resolved a connection leak issue in the internal database connection framework, effectively eliminating connection deadlock and improving the application's responsiveness by 10-20%.
- Developed a digital signature solution for real-time document verification, now used by 58 officials.
- Conducted interactive training sessions with 50+ end users at The Parliament House of Bangladesh; feedback revealed an increase in operational efficiency.

Loosely Coupled Technologies

Jul. 2022 – Nov. 2022

Software Engineer

- Updated and maintained existing code of ezassist a multichannel Sales, POS and CRM system.
- Rebuilt the entire invoice generation system with Node JS and Express, optimizing paper space for printing and reducing printing costs by 52%.
- Innovated interactive UI components utilizing Angular JS that improved user navigation by 35%, resulting in a significant increase in task completion rates and overall productivity for end-users.
- Executed comprehensive updates to refine application features; achieved a notable 15% decrease in customer support inquiries related to feature functionality within three months.

EDUCATION

North South University

May. 2022

Bachelor of Science in Computer Science and Engineering

Projects

Autoscript ORM

TypeScript, PostgreSQL.

- Autoscriptorm is a lightweight TypeScript based ORM for PostgreSQL.
- The orm supports dynamic types and accumulates types if table joins are performed.
- The ORM supports
 - Column suggestions, serialization, virtual columns
 - create, update, delete, read
 - `where = != < > < > <= >= like in not in is null is not null`
 - order by, asc, desc, offset, limit, inner join, left join, right join

Full-Stack ERP/IMS System

React, JavaScript, TypeScript, JWT, Zod, Multer, Docker, Git, CSS, HTML.

- Architected a scalable Full-Stack ERP/IMS using Node.js/TypeScript (Backend) and React (Frontend), implementing a modular architecture to ensure long-term maintainability and separation of concerns.
- Engineered a robust Role-Based Access Control (RBAC) system, utilizing JWT-based authentication and custom middleware to secure RESTful APIs and manage granular user permissions.
- Developed a type-safe data layer by integrating Zod schemas with Data Transfer Objects (DTOs) and DAOs, ensuring strict request validation and reducing runtime errors.
- Optimized frontend state management by building custom React Hooks and Context Providers, encapsulating complex business logic and providing a global state for users, roles, and entities.
- Designed an extensible UI component library, creating reusable, accessible components (Tables, Dialogs, Forms) that streamlined the development of CRUD-heavy management pages.
- Implemented a centralized error-handling and feedback system, including custom Express middleware for the backend and a Toast notification provider for real-time frontend user feedback.

Dearborn-coding-club/website-base-frontend

ReactJS, TypeScript, HTML, CSS, APIs.

- A website for a local meetup group dedicated to folks passionate about building and software related topics.
- Authentication: Implemented JWT based auth Provider to enable login, logout.
- Global Loading Component: Designed Global loading UI Component to ensure smooth User Experience.
- Global Toast Message: Created Global Toast Message UI to ensure User Experience.
- Profile Page: Designed user profile page for users to showcase their skills and leetcode stats.
- Project Carousel: Created an infinite scroll carousel to showcase github repo.

WORDS

PHP, JS, JQuery, Bootstrap, HTML, CSS, MySQL

- A comprehensive online reading and writing web application that is incorporated with social networking features.
- Built a responsive feed and post system with CSS and JavaScript, enabling users to create, view, and interact with posts.
- Utilized MySQL database for efficient data storage and retrieval, including designing database schemas and writing SQL queries.
- Integrated PHPMailer for email notifications and password recovery, ensuring reliable communication with users.
- Followed MVC architecture principles to separate concerns and improve code organization.
- Ensured cross-browser compatibility and responsiveness by developing and testing CSS styles for various components.
- Documented the project with a comprehensive README.md file to guide future developers and collaborators.

NSUVMS

PHP, JavaScript, HTML, CSS, MySQL, Charts (by google)

- Web portal for NSU (North South University) students' vaccine data management.