Aymene Bahmed

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Portfolio: https://aymene-bahmed.vercel.app

SUMMARY

Full-Stack and Junior Software Engineer with a strong Computer Science background and current specialization in Data Science. Proficient in building performant, accessible, and scalable web applications across the full software lifecycle using TypeScript, React/Next.js, Node.js, and Laravel. Experienced in client/server validation, database modeling, offline-first architectures, and automated E2E testing.

SKILLS

Frontend: HTML, CSS, JavaScript, TypeScript, React.js, Next.js, TailwindCSS, Zustand, Zod, react-hook-form, shadcn/ui

Backend: Node.js, Next.js, PHP, Laravel

Databases: MySQL, PostgreSQL, Prisma ORM

Testing: Playwright, Vitest, Jest

Tools: Vite, Git, GitHub, Node.js, npm, composer, Linux, VS Code, Figma

Concepts: Responsive Design, REST APIs, Relational Database Design (ERD), Web Accessibility (WCAG/a11y), Authentication/Security Best Practices

PROJECTS

Research Laboratories | TypeScript, React.js, shadcn/ui, PHP, Laravel, MySQL
(Computer Science Bachelor's Capstone Project)

- Designed and deployed a web app with a clean, modern, and responsive UI.
- Modeled and normalized relational database schemas (ERD) using MySQL and Laravel Eloquent.
- Implemented client-side form validation for instant user feedback and better UX using Zod and react-hook-form.
- Implemented server-side form validation for data security and integrity using Laravel's validation rules.
- Utilized Server-Side Rendering (SSR) strategy to improve SEO and load times.
- Optimized fonts using Fontsource.
- Optimized images using vite-plugin-image-optimizer at build time for fast load times.
- Added a README.md file explaining the engineering decisions, features, and what I learned.

Personal Portfolio | TypeScript, Next.js, shadcn/ui

- Designed and deployed a portfolio website with a clean, modern, and responsive UI that adapts to different screen sizes seamlessly.
- Followed WCAG such as using semantic HTML, ARIA labels, high-contrast colors, and respecting user preferences by leveraging browser DevTools emulation functionality (including color schemes, reduced motion, reduced transparency, and forced colors).
- Utilized Next.js Static Site Generation (SSG) strategy to improve SEO, load times, and minimize server costs.
- Optimized images using the next-image-export-optimizer at build time and Next.js' Image component to prevent Cumulative Layout Shift (CLS).
- Integrated project preview links and image carousels.
- Added a README.md file explaining the engineering decisions and features.

Stedule | TypeScript, Next.js, shadcn/ui, Prisma ORM, Better Auth, IndexedDB, Dexie.js, Vitest, Playwright
(Full-Stack Personal Project)

- Developed a full-stack task scheduling application using Next.js, featuring modern UI components.
- Utilized shadcn/ui components for accessibility and smooth user experience (UX).

- Engineered PDF export and printing functionality using react-to-print library, enabling users to save schedules.
- Implemented secure authentication system with encrypted credential storage and social login such as Google using Better Auth.
- Added support for anonymous users using IndexedDB/DexiDexie.js, enabling them to create and persist data locally.
- Integrated security best practices including password hashing, input validation, and protected routes.
- Integrated unit testing with Vitest.
- Implemented end-to-end (E2E) testing with Playwright.
- Added a README.md file explaining the engineering decisions and features.

Advanced Todo Application | TypeScript, Next.js, shadcn/ui, Prisma ORM
(Full-Stack Personal Project)

- Developed a web application for managing daily tasks.
- Integrated authentication using Auth.js library.
- Implemented dynamic data filtering and drag-and-drop task reordering using shadcn/ui Table.

EDUCATION

Master of Data Science
Oran 1 University Ahmed Ben Bella | Oran, Algeria

2025 - Present

Bachelor of Computer Science
Oran 1 University Ahmed Ben Bella | Oran, Algeria

Graduated: 2025

LANGUAGES

- Arabic: *Native*
- English: *Advanced*