Ahmed Fathy

Computer Engineer – Web Developer

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EXPERIENCE

- **Al Nada Scientific Office** | *Web Developer (Freelance)*   *Cairo, Egypt | June 2022 – 2024*
  - **Full-Stack Development**: Built custom ERP web application using React.js and PostgreSQL to replace legacy spreadsheet-based business processes.
  - **Frontend Engineering**: Designed responsive user interface with Redux state management and RESTful API integration.
  - **Deployment**: Configured Electron-based desktop deployment for local server usage.

STUDENT ACTIVITIES

- **IEEE** | *UI/UX Designer - Frontend Team Leader*   *Cairo | Oct 2025 – Present*
  - **Leadership**: Architected intuitive user interfaces and optimized user journey protocols for internal platforms.

- **Technical Center for Career Development (TCCD)** | *Frontend Developer*   *Cairo | June 2025 – Present*
  - **Development**: Engineered HR dashboard for event tracking and spearheaded optimization of the official TCCD web.

- **Physics Helping District (PhD)** | *Team Leader*   *Cairo | June 2022 – 2024*
  - **Mentorship**: Led peer tutoring initiative in electronics, achieving measurable academic improvement.

EDUCATION

- **Cairo University, Faculty of Engineering**   Giza, Egypt
  B.Sc. in Computer Engineering; GPA: 3.6   *2023 – 2027*

WEB DEVELOPMENT PROJECTS

- **Hankers (Social Platform)** | *Microservices, TypeScript, Docker, CI/CD*   Source Code | *2025*
  - **Scalable Microservices Architecture**: Designed a distributed system using **Microservices** and **TypeScript** to decouple services and ensure scalability.
  - **DevOps Automation**: Implemented **CI/CD pipelines** and **Docker** to automate testing and reliable delivery of services.

- **Tactic (Robotics & AI)** | *Real-Time Systems, WebSockets, Embedded*   Source Code | *2024*
  - **Real-Time Messaging System**: Engineered a low-latency **WebSocket** communication layer to integrate a web dashboard with embedded hardware.
  - **Reliability**: Ensured reliable message delivery and system synchronization between the browser interface and the robotic unit.

- **NexaMart** | *E-commerce Solution, Full-Stack*   Source Code | *2025*
  - **Stack**: Next.js (TypeScript), Redux Toolkit, Laravel 11, and MySQL.
  - **Functionality**: Implemented secure authentication (Sanctum), shopping cart logic, real-time order processing, and administrative analytics dashboard.

- **Tayseer-Web** | *Corporate Web Solution, Next.js*   Source Code | *2024*
  - **Deployment**: Deployed corporate website utilizing Next.js framework and TypeScript.
  - **Performance**: Maximized performance via Server-Side Rendering (SSR) and strict static typing for reliability.

- **Company Manager App – Al Nada Scientific Office** | *ERP System, React & PostgreSQL* Source Code | *2024*
  - **Tech Stack**: React.js, Redux, Express.js, Prisma, PostgreSQL, Electron for desktop deployment.
  - **Business Solution**: Developed ERP application for Al Nada Scientific Office managing customers, suppliers, inventory, and sales records.
  - **Deployment**: Packaged application with Electron for local server deployment, enabling offline usage.

Technical Skills

- **Core Concepts**: OOP, SOLID Principles, Design Patterns (Factory, Strategy, Singleton), Microservices Architecture, Clean Code

- **Integration & Backend**: RESTful APIs, GraphQL, WebSockets (Messaging), JSON/XML Data Mapping

- **DevOps & Tools**: CI/CD Pipelines, Docker, Git, Linux (Fedora)

- **Languages & DBs**: TypeScript, Python, SQL (PostgreSQL/MySQL), Node.js