Mostafa Shanab *Software Engineer*

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github.com/Mostafa-Shanab

in/mostafa-shanab-frontend-developer

Profile

Motivated and committed Software Engineer with a strong foundation in computer science and programming. Eager to leverage my technical skills and analytical capabilities to contribute to the creation of innovative software solutions

Education

2021 – 2025 **Bachelor's Degree in Computer Science (CGPA : 3.760, A-)**
Ain Shams University

Skills

Programming Languages
C#, C++, Java, Python, C

Backend Development
Node.js

Testing & QA
Postman, Selenium (Web Testing)

Database
Relational Database Modeling, MySQL

Version Control
Git, GitHub

Soft Skills
Time management, dedicated to work, Communication skills, Problem Solving, Presentation Skills, Teamwork

Projects

Alzheimer Smart Care (Graduation Project) Demo
Developed Alzheimer Smart Care, a cross-platform mobile app using Flutter, designed to support Alzheimer's patients, doctors, and caregivers. The app integrates advanced features including MRI classification (CNN-based), facial recognition (FaceNet + OpenCV), real-time location tracking (Google Maps API), cognitive games, and reminders. Implemented user role management, and secure authentication with Firebase, along with backend services using .NET Core and Flask APIs. The project demonstrates strong skills in AI integration, mobile development, and applying technology to healthcare, earning full academic distinction.

E-Commerce Website Demo
Built a complete e-commerce web application with full-stack functionality using HTML, CSS, JavaScript (frontend) and PHP, MySQL (backend). Integrated user authentication and product management. Deployed locally using XAMPP/WAMP, and managed version control with Git. The project reflects strong understanding of web development fundamentals, database integration, and creating responsive, user-centric web applications.

Elzero Web School (Template 1) Demo
I built a clean, responsive landing page using only HTML5 and modern CSS techniques, including CSS Grid, Flex layout and minimal media queries, ensuring optimal display across devices. The template features a visually appealing design with animated navigation, a services section, and structured content—showcasing best practices learned from the HTML & CSS Template One video series . This project strengthened my ability to create responsive, framework-free web pages using real-world CSS patterns and design workflows.

Burrows-Wheeler Compression

Implemented the Burrows-Wheeler Transform (BWT) compression and decompression algorithms using C# in Visual Studio, applying concepts from Algorithms Analysis & Design. Utilized techniques like Divide and Conquer, Algorithm Transformation, and String Manipulation to ensure efficiency and accuracy. The project received full marks with bonuses, reflecting strong skills in algorithmic thinking, problem solving, and low-level data processing.

Deep Learning-Based Image Segmentation for Object Recognition

Designed and implemented multiple deep learning architectures (UNet, SegNet, DeepLab) for semantic image segmentation and object recognition. Trained models on relevant datasets and evaluated performance using metrics such as IoU, Dice coefficient, and mean pixel accuracy. Conducted comparative analysis to identify the most effective model per use case and optimized for faster inference and lower computational cost. This project shows strong proficiency in deep learning, model optimization, and AI-powered computer vision applications.

Forum Discussion Classification Using Deep Learning and Transformers

Built and fine-tuned deep learning models (LSTM, CNN, and BERT) to classify forum discussions into meaningful categories with high accuracy. Applied advanced NLP techniques include tokenization, stemming, Word2Vec embeddings, and transformer-based contextual understanding. Performed EDA to uncover insights and address class imbalance, and used TensorFlow, PyTorch, and Hugging Face for training and deployment. This project demonstrates expertise in text classification, transformer models, and practical applications of NLP in real-world communication platforms.

Apartment Rent Prediction Using Machine Learning

Developed and fine-tuned machine learning models to predict apartment rent using both regression and classification approaches, based on structured housing data. Conducted comprehensive data preprocessing (handling nulls, scaling, normalization), explored various algorithms (e.g., Linear Regression, Random Forest, XGBoost), and applied hyperparameter tuning to optimize performance. Adapted the pipeline to predict both continuous and discrete rent values. Ranked 3rd out of 100+ teams in a competitive ML course challenge in college, demonstrating strong skills in model selection, feature engineering, and predictive analysis.

Sentiment Analysis of Movie Reviews Using Machine Learning

Built and trained machine learning models to classify movie reviews as positive or negative using Natural Language Processing (NLP) techniques. Applied preprocessing steps such as tokenization, stop-word removal, and TF-IDF vectorization, followed by model training using algorithms like Logistic Regression, Naive Bayes, and SVM. Demonstrated solid understanding of text classification, NLP pipelines, and evaluating model performance with metrics like accuracy, precision, and recall.

Certificates

- Software Engineer Intern, HackerRank
- Full Stack PHP Training, ITI
- Mobile Development by Flutter, sprints.ai
- Machine Learning Competition, College
- Web Development Fundamentals, sprints.ai
- AI Finance Hackathon, Google

Professional Experience

2025/07 – present
Cairo, Egypt

React Frontend Web Developer Training

DEPI (Ministry of Communications and Information Technology)

Currently enrolled in a 6-month DEPI training program in Software Development – React Frontend Web Developer (July–December 2025), focused on building strong practical and theoretical skills in modern web development. The training covers HTML5, CSS, JavaScript, and Bootstrap for responsive UI design, along with advanced development using React.js (components, hooks, routing, and state management). It also includes TypeScript for typed JavaScript development, backend fundamentals using Node.js and Express, and best practices in Git/GitHub version control, functional documentation, unit testing, and clean code architecture. The program introduces UX/UI design principles, prompt engineering, and containerization using Docker. A final capstone project will demonstrate the integration of React and Node.js in a real-world full-stack application. This experience reflects strong commitment to professional software development with a focus on scalable, maintainable, and user-centered web applications.

2024/07 – 2024/08

Full Stack PHP Training

Information Technology Institute (iTi)

Completed intensive Full Stack PHP training at the Information Technology Institute (iTi), gaining hands-on experience in HTML, CSS, JavaScript, PHP, and Bootstrap. Built a fully functional, responsive web application integrating both frontend and backend logic. The program included multiple tasks, quizzes, and a final project, reinforcing skills in building real-world websites, working with APIs, and applying full stack development principles effectively.

2022/01 – present

Elzero Web School (YouTube Playlists)

Completed the Front-End Developer Roadmap playlist on Elzero Web School (Osama Elzero), a ~50-hour Arabic-language series covering HTML, CSS, JavaScript, Git & GitHub, TypeScript, and Bootstrap, featuring real-world coding examples. In addition, I'm continuing to enhance my skills by following other playlists on the channel, including advanced responsive design, frameworks, APIs, and best practices—deepening and reinforcing my front-end development capabilities.

2025/06 – 2025/07

SprintUp – Web Development Fundamentals Course

sprints.ai Website

Gained a strong foundation in HTML, CSS, JavaScript, and basic Python through a structured, beginner-friendly curriculum. Covered key concepts in software processes and web development, with a focus on building responsive websites from scratch. Completed over 40 hours of hands-on learning including coding tasks and real-world projects. The course provided flexible, bilingual instruction (Arabic/English) and optional upskilling modules, laying a solid base for advanced web development training.