Mohamed Mayhoub

Software Engineer

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Junior Software Engineer with practical experience in Python, Java, and web technologies, combined with a strong foundation in computer science education and data analytics. Skilled in building responsive web solutions, training AI models, Vibe coding, and delivering tailored programming instruction. Proven ability to drive data-driven insights and support scalable digital solutions in remote, fast-paced environments.

Education

Bachelor of systems and computers engineering at Faculty of Engineering, Al Azhar University, Cairo, Egypt

October 2020 - July 2025

- Specialized in software development, computer systems, and networks.
- Completed advanced coursework in Programming, Algorithms, Data Structures, Operating Systems, Embedded Systems, and Information Security.
- Graduation Project (Grade: Excellent): Developed a university housing management system to automate application, approval, and service access processes for students.

Work Experience

Data Analysis Intern at Digital Egypt Pioneers Initiative (DEPI)

June 2025 - Present

- Conducted comprehensive data analysis using Excel, SQL, Python, Power BI, and Tableau to support national-level digital transformation efforts.
- Designed interactive dashboards and visual reports, improving decision-making processes for stakeholders

Data Analysis Intern at Brainwave Matrix Solutions, Remote

July 2025 - August 2025

- Cleaned and transformed large datasets using Excel and Python, enabling accurate and efficient data analysis workflows.
- Conducted weekly data analysis tasks, identifying patterns and trends that supported business insights.
- Collaborated with the team to deliver data-driven recommendations for improving project outcomes

AI Expertise Trainer at Outlier, Remote

November 2024 - Present

- Trained and evaluated AI models by providing expert human feedback on generated responses, improving model accuracy and relevance.
- Designed and tested custom prompts to fine-tune AI behavior across diverse tasks.

Instructor at Toppers, Remote

September 2022 - Present

- Delivered engaging programming and computer science lessons to both children and adults, adapting content to various skill levels.
- Conducted personalized tutoring sessions in Python, Java, HTML, and CSS, resulting in improved academic performance and coding proficiency.

Projects

AI Website Builder – (2025) · ↗

- Built a full-stack AI-powered website generator that interprets user ideas and produces dynamic layouts (Hero, About, Contact).
- Developed frontend with Next.js, backend with Nest.js, and used MongoDB for data storage.

- Applied Vibe Coding via Cursor IDE to enhance development speed and streamline AI-assisted code generation.
- Project was completed as part of a technical evaluation for a Vibe Coding role.

AI-Powered Math Teacher – Personal Project (2025) · ↗

- Created an interactive educational website for teaching math using HTML, CSS, and JavaScript, supported by an AI model.
- Integrated explainer videos, motion graphics, and dynamic quizzes to deliver a personalized learning experience.
- Designed the platform to enhance student engagement, comprehension, and real-time feedback.

Sentiment Analysis – Brainwave Matrix Solutions (2025) · ↗

- Built a sentiment analysis pipeline to classify airline tweets into Positive, Neutral, and Negative categories.
- Used Python libraries such as Pandas, Scikit-learn, and NLTK for data preprocessing, vectorization, and model training.
- Visualized data distributions and sentiment trends using Seaborn and Matplotlib.
- Project enhanced understanding of natural language processing workflows and classification model evaluation.

University Housing Management System – Graduation Project (2025) · ↗

- Developed a full-stack web platform to automate student housing processes, from application submission to admin approval and service access.
- Led the frontend development using Angular, with backend logic implemented in Java using Spring Boot, and MySQL as the database.
- Implemented authentication, role-based access control, and real-time request tracking to enhance efficiency and user experience.

Skills

Programming Languages: Java, Python, JavaScript, SQL

Web Development: HTML, CSS, Angular, Next.js, Nest.js

Data & Analytics: Excel, Power BI, Tableau, Pandas, Numpy

Database: SQL-based systems, MongoDB

Tools & IDEs: Git, Postman, VS Code, NetBeans

AI & Emerging Technologies: Vibe Coding, Prompt Engineering

Other Skills: Algorithms, Problem Solving, Agile Development

Certifications & Courses

Business Intelligence and Data Analysis – LINK Program (eYouth) from EYouth

August 2025 · ↗

Completed an intensive program covering business intelligence concepts, data analysis methodologies, and data visualization tools to drive informed decision-making. Focused on practical applications using real-world datasets.

AI Starter Kit (AiSK) from ALX Africa

April 2025 · ↗

Practical introduction to AI tools for enhancing productivity and daily use.

AI Career Essentials (AiCE) from ALX

July 2024 · ↗

Intensive program on AI fundamentals, job readiness, and leveraging AI tools in real-world scenarios.

EF SET English Certificate from EF SET

July 2024 · ↗

Assessed at CEFR level C1 (Advanced) for English language proficiency.

Regional Champion – ECPC 2022 from ICPC

August 2022 • ↗

Participated in a regional-level problem-solving competition in competitive programming.

Access Information Online from Ministry of Youth

December 2023 • ↗

Focused on online research, information organization, and using digital tools in education and career development.

Working with Computers from Ministry of Youth

December 2023 • ↗

Training on productivity software (Word, Excel, PowerPoint) and digital safety fundamentals.

Languages

• **Arabic** - Native

• **English** - Proficient