## Mohamed Farouk Hasnaoui

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#### **Personal Profile**

A versatile, full-stack developer with a background in engineering, experienced in building secure, maintainable web solutions from the database layer to deployment. Skilled in Node.js, Express, React, and modern testing, I have successfully delivered end-to-end projects that align with real-world business needs. Currently seeking opportunities—as a team member or freelancer—to contribute in Ireland or remotely.

#### Skills

Node.js - Express.js - Jest - RESTful APIs - PostgreSQL (SQL) - MongoDB (NoSQL) - HTML & Tailwind CSS - Javascript & Typescript - React - Git (version control) - OOP & SOLID Principles - Data structure & Algorithm - AWS S3, RDS, & EC2.

### **Experience**

#### Freelancer - Web Developer

Oct 2024 - Present

- Mostaql
  - Built end-to-end websites for small-scale businesses, handling every stage from database design, backend development, and frontend implementation, through to final deployment.
  - Translated complex business requirements into practical, maintainable code, ensuring solutions aligned with client visions and objectives.

#### **ERASMUS+ Engineering Research Project**

Jul 2022 - Sep 2022

- University of the West of Scotland Paisley, Scotland, UK
  - Developed an AI model to predict forces around a drone propellers.

#### **Personal Projects**

#### **Patient Management System**

Nov 2024 - Dec 2024

- Link To Website: carepulse.pro
  - Developed a secure, web-based platform enabling patients to register, verify via SMS-based OTP, and schedule appointments easily.
  - Implemented a modern stack (Next.js, Node.js, Express, PostgreSQL, AWS) and integrated Tailwind CSS and Jest for styling and testing.
  - Streamlined administrative oversight and improved the patient onboarding process, enhancing overall healthcare service delivery.

AlgoFork Oct 2024 – Present

- Link To Website: algofork.com
  - Created a full-stack platform offering algorithmic coding challenges, serving as a free, interactive alternative
    to LeetCode.
  - Built with React, Node.js, Express, MongoDB/Mongoose, Vercel, Jest, and Tailwind CSS, focusing on real-world problem-solving scenarios.
  - Provided an engaging environment for skill development, helping users improve their coding proficiency and reasoning.

VidRent Oct 2024

- Link to the Repository: github.com/EngenMe/VidRent
  - Built a RESTful API backend enabling management of video rentals, including customers, movies, and user authentication.
  - Implemented Node.js, Express, MongoDB/Mongoose, and Jest for test-driven development and reliable data operations.
  - Delivered a scalable, maintainable API supporting CRUD operations and role-based access control.

React Game Store Sep 2024 – Oct 2024

- Link to the Demo Website: react-game-store-flame.vercel.app
  - Developed a frontend application showcasing a variety of games fetched from an external API.
  - Utilized React, Tailwind CSS, and deployed on Vercel to demonstrate state management, API integration, and responsive design.
  - Offered a modern UI for exploring and discovering games, reflecting contemporary frontend expertise.

#### **POS Restaurant System**

June 2024 - Aug 2024

- Link to the Repository: github.com/EngenMe/RestaurantPOSSystem.git
  - Implemented a full-featured POS system for restaurants, including reservations and user management.
  - Developed with C#, Windows Forms, and MSSQL, using an ER diagram-driven approach and ADO.NET.
  - Provided a comprehensive tool to streamline sales, reporting, and daily operations.

#### **License Track System**

May 2024 - June 2024

- Link to the Repository: github.com/EngenMe/LicenseTrack
  - Created a desktop application to manage driving licenses, tests, and user data efficiently.
  - Built with C# (3-tier architecture) and SQL Server, enforcing prerequisites and restrictions for test bookings.
  - Improved administrative handling of licensing procedures and enhanced data management.

#### **Open-Source Contributions**

## Bug Solved - Magic UI - An Open-Source with Over 12.7K stars on Github

Dec 2024

- Identified and fixed a rendering issue in the react icon cloud library by correcting JSON response handling and improving icon color fetching logic.
- Worked with TypeScript, Jest, and GitHub to implement the fix and validate functionality with comprehensive unit tests.
- Enhanced the user experience by ensuring correct icon colors and behavior in the interactive cloud component, earning the contribution's acceptance into the library's official codebase.

# Feature Added - PyBEMT - A Python Open-Source Made by Associate Professors from University of Stavanger

Oct 2022

- Identified inaccuracies in PyBEMT results and implemented a 3D stall delay model to improve simulation precision.
- Utilized Python and aerodynamic modeling techniques to update the source code of a project developed by Associate Professors from the University of Stavanger.
- Achieved a 3% overall improvement in accuracy, enhancing the reliability of the open-source blade element

## momentum theory tool.

## **Education**

Master Degree in Mechanical Engineering, University of Biskra, Algeria  Certificates	Sep 2018 – June 2020
The Ultimate TypeScript Course - Code With Mosh	Sep 2024
The Ultimate JavaScript Course - Code With Mosh	Sep 2024
The Ultimate HTML & CSS3 Series - Code With Mosh	Sep 2024
<b>Problem Solving With C++, Backend with C#, and SQL</b> - Programming Advices	Jan 2024 - June 2024