# **Ibrahim Ahmed**

## Software Engineer

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## PROFESSIONAL EXPERIENCE

### **Software Engineer Intern**

04/2023 – 11/2023 | Cairo, Egypt

Post-graduate College, Police Academy

- Developed an offline-first full-stack application using **React.js** and **Node.js**, **Express.js** to streamline research publication processes ensuring data security and accessibility.
- Implemented user authentication and authorization features, employing **JWT**-based authentication for secure **API** access.
- Designed and structured the frontend interface with **React.js**, incorporating various components for research submissions, researcher management, and journal editions.
- Integrated a **PostgreSQL** database for efficient data storage and retrieval, utilizing **db-migrate** for database migrations and ensuring schema consistency.

## **PROJECTS**

**Script Symphony** *∂* 

01/2024 - 04/2024

- Developed a full-stack coding blog with **Node.js**, **Express.js**, and **TypeScript**, **React.js**, **PostgreSQL**.
- Implemented authentication, authorization, and file upload features using Multer and Cloudinary.
- Achieved +91% test coverage through comprehensive unit and integration testing with Jest, improving code quality and reliability.
- Received positive user feedback on the Markdown support feature, enhancing article readability and user experience.
- Leveraged **Redux** for state management, allowing for efficient data flow and consistent application behavior.

## **Smart Insect Monitoring** *⊘*

11/2021 - 06/2022

- Led development of automated insect detection system with cloud-based **YOLOv5** model, achieving +84% accuracy.
- Published a **paper** *⊘* detailing the project's methodology and findings, contributing to the field of smart insect monitoring.

**Store Front** *⊗* 08/2022 – 09/2022

- Designed and implemented a **RESTful API** for CRUD operations, accompanied by thorough documentation of endpoints, project structure, and database schema.
- Implementing user authentication with encryption and providing **JWT** tokens for front-end integration.
- Achieved +85% test coverage through comprehensive unit and integration tests with Jasmine, ensuring code reliability and functionality.

#### **Image Processing API** *⊘*

08/2022 - 08/2022

- Developed a versatile **API** for image processing tasks like resizing, cropping, and grayscale conversion, enhancing the project's functionality and usability.
- Ensured code reliability and maintainability by structuring the project with a clear file hierarchy and utilizing **TypeScript** for type-safe development.
- Achieved comprehensive unit test coverage using **Jasmine**.

## **EDUCATION**

## **Bachelor of Computer Science and AI**

09/2018 – 07/2022 | Cairo, Egypt

Helwan University

### **SKILLS**

Problem-Solving | Algorithms | Data Structures | OOP | REST APIs | testing | Python | JavaScript | Typescript | Node.js | Express.js | Jest | Jasmine | HTML | CSS | Sass | Bootstrap | React.js | Redux | SQL | PostgreSQL | Teamwork | Communications | Responsibility | Collaboration.

## LANGUAGES

Arabic | English