






# 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

### PeakBooker API

05/2024 – 06/2024

- Developed a tour booking application with enhanced user, tour, booking, and review management using **Node.js**, **Express.js**, and **MongoDB**.
- Implemented authentication and authorization using **JWT**.
- Integrated **Stripe** for payments and **Sharp**, **Firebase** for photo processing and uploads.
- Implemented automated **email** notifications using **Nodemailer** and **SendGrid** and advanced error handling.
- Utilized **Morgan** and **Winston** for comprehensive logging.


### 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.

## EDUCATION

### Bachelor of Computer Science

09/2018 – 07/2022 | Cairo, Egypt

Faculty of Computers and Artificial Intelligence, 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 | MongoDB | Mongoose | JWT | Stipe | Firebase | Teamwork | Communications | Responsibility | Collaboration.

## LANGUAGES

Arabic | English