



Ahmed Bakr

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Address: Cairo, Egypt Date of Birth: 12/1/2001 Nationality: Egyptian Military Status: Exempted

Education

Ain-Shams University (Sept 2020 – July 2025)

Bachelor of Computer and Systems Engineering

Relevant Coursework: Software Engineering, Advanced Programming, Databases, Design & Analysis of Algorithms, Operating Systems.

Experience

Software Developer — ETG

Oct 2025 – now | Remote

- Developing React components and backend logic for **JourneyAi**: <https://www.app.meetjourney.ai>

Software Intern — Siemens Digital Industries Software

Jul 2024 – Dec 2024 · 6 months | Cairo Festival City, New Cairo, Egypt | On-site

- Completed intensive training focused on core software engineering concepts and practices.
- Studied principles of software architecture, object-oriented analysis and design ‘**OOAD**’ and best practices for writing clean, maintainable, and scalable code.
- Strengthened problem-solving skills through algorithm design and structured problem analysis.
- Explored the full Software Development Life Cycle (SDLC), including methodologies such as Agile and Waterfall.
- Developed tools using **Java Spring Boot**, **React JS**, and **Qt** framework.

Software Testing Trainee — Information Technology Institute (ITI)

Aug 2024 – Sept 2024 · 1 month | Cairo, Egypt | Remote

- Gained foundational skills in manual and automated software testing tools and methodologies.

Android Developer Trainee — Information Technology Institute (ITI)

Sep 2022 – Oct 2022 · 2 months | Cairo, Egypt | Remote

- Learned core Android development principles using Java and Android Studio.

Projects

Graduation Project Sponsorship titled **STBee Desktop App** — **STMicroelectronics**

- Designed a custom interfacing protocol over **UART** for reliable client-server data exchange.
- Contribute to UI/UX design using **Figma**.
- Developed modern UI tool for visualizing and controlling **ZigBee** network using **Qt C++ framework**.
- Demo Link:** drive.google.com/file/d/1iFhiZ3F9zUOWQb7j8BOdgjyr3gIXef4r/view?usp=sharing

Career Linker using **Spring Framework** and **Microservices Architecture**

- Implemented gateway authentication.
- Resume parsing using Spring AI and storing resume into MongoDB.
- Job matching and notification service (Under Development)
- GitHub Repo:** github.com/AhmedBakrXI/CareerLinker

Secured Ecommerce Server using **Spring Framework**

- Designed models and database schema for different types of products using **PostgreSQL** with **JPA & Hibernate ORM**.
- Implemented product caching using **Redis**, configured with **Docker Compose**.
- Implemented basic authentication and secured methods based on user role.
- Integrated **JWT** based authentication and authorization.
- Implemented a generate and send verification email service for activating newly registered emails.
- GitHub Repo:** github.com/AhmedBakrXI/Ecommerce-Spring

Virtual Screener Web App using **Spring Framework** & **React JS**

- Designed models and database schema for question banks, video, and answers storage for different users.
- Designed a modern UI/UX design using **Figma**.
- Implemented email service for sending HTML emails to users.
- Implemented some **React** components.
- Generate **Swagger-Doc** and **Java-Doc** for backend.
- GitHub Repo:** github.com/ElmeSelhy/video-screener

Technical Skills

Languages: C/C++, Java, Python, JavaScript, C#, MATLAB, SQL, HTML, CSS.

Tools & Technologies: Spring Boot, Spring Data JPA, Spring Security, Spring Cloud, Spring AI, JUnit, Thymeleaf, Postman, Qt, JavaFX, Android SDK, Linux, Docker, Docker Compose, Git, PostgreSQL, MongoDB, H2 Database, Redis, Kafka, RabbitMQ, Maven, Gradle, CMake, GDB, Trello.

Concepts: Operating Systems, Multithreading, Inter-Process Communication, Virtual Memory, Linux, Object-Oriented Programming, Data Structures & Algorithms, MVC Architecture, System Design, Inversion of Control, Dependency Injection, Database Normalization, Caching, Microservices, REST APIs, SOAP, Authentication & Authorization, Agile Development, Kanban.