

## SUMMARY

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Backend Engineer and Technical Project Supervisor with 3+ years of experience building secure, scalable, and high-performance backend systems. Skilled in Node.js, Express, RESTful APIs, microservices, PostgreSQL, MongoDB, and real-time tools like RabbitMQ and Socket.io. Proficient in JavaScript, Java, C++, system design, and optimizations including JWT/RBAC security, Redis caching, and CI/CD for reliable cloud deployments.

## EDUCATION

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- Faculty of Computers And Informatics** Egypt, Tanta  
*Bachelor of Science in Computer Science; GPA: 3.00* Oct. 2021 – May. 2025

## EXPERIENCE

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- ITC** Egypt, Tanta  
*DEPI Technical Project Supervisor* Oct 2024 - Present
  - Supported 50+ DEPI students across diverse technical projects and programming challenges.
  - Resolved 100+ critical software bugs, improving project delivery time and reliability for DEPI student teams.
  - Guide students through best practices in software development and system design.
  - Mentor teams on modern development workflows using Git/GitHub and collaborative tools.
  - Leverage broad programming experience to solve diverse technical problems across multiple languages.

## PROJECTS

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- Baby Tracker(Graduation Project — A+ Grade):** A scalable backend for a child vaccination notification system with 75+ API endpoints using Node.js/Express, PostgreSQL, and MongoDB. Implemented JWT/RBAC security, RabbitMQ async messaging, worker threads for parallel tasks, dual-database persistence — improving task throughput by 40% and ensuring 99.9% reliability across concurrent processes. Integrated with Firebase, Cloudinary, Gemini AI, and Google Maps. Demonstrates expertise in resilient, real-time architectures with features like vaccination scheduling, alerts, doctor bookings, and educational content. [Project Link](#)
- ShopCore - Scalable E-commerce Backend System:** A robust e-commerce backend with Node.js/Express and PostgreSQL via Sequelize. Implemented JWT authentication, role-based access control, product catalog management, shopping carts, order processing with atomic transactions, payments, shipments, Unit and integration testing, Redis caching for optimization, Winston logging, Nodemailer emails, and Swagger API docs, CI/CD pipeline. Demonstrates expertise in secure, scalable APIs with features like stock management and rate limiting. [Project Link](#)
- SweetTalkr - Real-Time Chat Application:** A real-time chat app MVP with Node.js/Express backend and PostgreSQL for data management. Implemented JWT authentication, Socket.io for messaging, receipts tracking, and Docker Compose for containerized deployment. Demonstrates ability to build scalable, real-time systems [Project Link](#)

## PROGRAMMING SKILLS

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**Programming** (JavaScript, TypeScript, Python, Java, C++), **Backend** (Node.js, Express, REST, microservices, Socket.io), **Data** (SQL, MongoDB, Redis, ORM/Sequelize, Mongoose), **Data Validations** (joi, Express Validator), **Messaging/Async** (RabbitMQ, worker threads), **DevOps** (Docker, CI/CD, GitHub Actions), **Cloud** (Microsoft Azure), **Security** (OWASP, JWT, RBAC, rate limiting), **Testing** (Jest, Supertest, Postman), **Observability** (Winston), **Documentation** (Swagger).

## CERTIFICATES

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- Microsoft Back-End Developer Professional Certificate [Certificate Link](#)
- IBM Developing Back-End Apps with Node.js and Express Certificate [Certificate Link](#)
- Google Foundations of Cybersecurity Certificate [Certificate Link](#)
- Google Manage Security Risks Certificate [Certificate Link](#)