Tarek Ragab

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SUMMARY

Full-Stack Software Engineer with expertise in .NET, React, Azure, and scalable data-driven solutions. Proven track record of delivering high-performance web applications and data pipelines that improve efficiency and performance while reducing operational costs.

SKILLS

- **Programming Languages:** C#, C++, JavaScript, TypeScript, Python, Dart.
- **Frameworks & Platforms:** .NET, Node.js, Nest.js, React, Flutter.
- **Cloud & Serverless:** Azure Function Apps, Azure Service Bus, Azure Web Hosting.
- **Data & APIs:** SQL Server, PostgreSQL, RESTful APIs, WebSockets, Message Queuing.
- **Version Control & CI/CD:** Git, GitHub, GitHub Actions.
- **Miscellaneous:** UML, Documentation Practices, Markdown, LaTeX, Agile, Scrum, Waterfall.

WORK EXPERIENCE

Software Engineer (Remote), Upwork   Jan 2023 – Present
- Delivered **10+ large-scale projects**, covering system design, implementation, documentation, and maintenance.
- Provided consultation and guidance to help diverse companies build and maintain **long-term projects**.
- Created various dashboards to visualize core data in real time, along with alerting systems.
- Planned and applied database migration across different database engines.

Full-Stack Software Engineer, RES-VA   Jun 2024 – Present
- Built full-stack solutions using React.js, C#, .NET, and SQL Server, streamlining KPI tracking and data management.
- Built automated workflows with **Azure Function Apps and Service Bus**, **reducing data collection time by 10x** and cutting manual workload.
- Planned and implemented automation pipelines to ease deployment and maintainability of ongoing apps.
- Created pre-compiled SQL views, **reducing response latency by 40%**.
- Collaborated with the CTO and Senior Software Engineer to design a **detailed ERD** for a multi-tenant file management system.

Mid-Level IoT Firmware Engineer (Full-time), SudoTechs   Jun 2022 – Oct 2024
- Created IoT systems architecture and implemented firmware for various microcontrollers, supporting **20+ industrial devices**.
- Optimized embedded workflows, **reducing device data transmission delays by 80%**.
- Shipped customized IoT solutions that scaled to handle **2× more connected devices**.

IoT Instructor (Part-time), CIC, Cairo   Oct 2022 – Oct 2023
- Structured and conducted a practical IoT curriculum for over **200 students**.
- Delivered more than **80 hours** of practical sessions across different workshops.

Digital Fabrication Trainee (Internship), Sector B5   Jun 2021 – Sep 2021
- Gained practical experience with 3D printing (FDM, SLA) and CNC machinery.
- Designed and built an autonomous maze-solving robot that **completed obstacle courses 20% faster** than baseline models.

PROJECTS

Lead Generation Reporting App   *(RES-VA)*

Contributed to a reporting platform using **.NET, SQL, Redis, React TS** to visualize and export real-time lead and productivity metrics, **cutting report generation time by 3×**.

Loan System Reporting App   *(SANAD Finance)*

Established a reporting solution using **SQL, Python, Elasticsearch**, enabling **3× faster query performance** and improving cash flow projection accuracy by **25%**.

End-to-End Data Pipeline   *(RES-VA)*

Built a scalable **Python**-based pipeline with **Azure Function Apps**, **processing 2× more data** and automating ingestion, transformation, and export of CRM and dialer records.

Human Resources Management   *(Future of Egypt)*

Developed a responsive HR management platform with a **Flutter Web** frontend and **Node.js** backend, heavily reliant on **SQL** with extensive use of **views** and **stored procedures**, **boosting reporting efficiency by 40%**.

Licencer Desktop App   *(Boreal Laser Inc.)*

Created a cross-platform licensing management desktop application using **Flutter Desktop**, **reducing manual license issuance time by 50%**.

IoT Dashboard   *(Boreal Laser Inc.)*

Developed a real-time IoT monitoring dashboard using **Vanilla HTML, CSS, JS**, improving sensor data visibility and reducing diagnostic time by **30%**.

Industrial Web Dashboard   *(Graduation Project)*

Built an industrial process visualization tool using **Node.js, React.js**, boosting operational response times.

Maze Solver Robot pi-bot   *(Sector B5)*

Designed and programmed an autonomous maze-solving robot using **C++**, achieving a **25% improvement in navigation speed**.

EDUCATION

2018 – 2024   Bachelor of Telecommunication and Electronics Engineering, **Helwan University**, Cairo, Egypt.

LANGUAGES

Arabic   C2 – Native / Bilingual
English   C1 – Full Professional