AbdelRahman Adel

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Skills

Programming Languages	TypeScript/JavaScript, Go, Java, Python, Rust, C/C++, Kotlin, Swift
Frontend Technologies	React, NextJs, Svelte/SvelteKit, HTML/CSS/Sass, UIKit.
Backend Technologies	Go Echo, NestJs, Node.js, Java SpringBoot, REST, GraphQL, gRPC, SOAP
Databases & Storage	PostgreSQL, MySQL, SQLite, MongoDB, Redis
DevOps & Tools	VPS management, Docker, CI/CD, Git, Linux, Shell(Bash/Zsh), Kubernetes

Work Experience

e-SKY Solutions
Kirkland, Quebec, Canada

Technical Lead — *Jan. 2026 - Present*

- Led 5-engineer architectural audit and analysis of legacy IBM DB2 system, diagnosing systemic anomalies, inconsistencies, and corruption in 20.2M-row denormalized dataset; designed BCNF-compliant target schema to eliminate referential integrity anomalies, projecting 40× reduction in storage footprint.
- Directed 3-engineer team in architecting end-to-end modernization pipeline: paperless probill workflow with ISAAC tablet integration and digital signatures, automated pricing engine with Microsoft Dynamics 365 API, and real-time fleet monitoring dashboard processing 45+ telemetry parameters.

Software Engineer — *May 2024 - Dec. 2025*

- Awarded "Born Builder" for embodying company values and delivering exceptional software solutions.
- Designed multithreaded Go service handling SOAP-to-REST translation for 20,000 concurrent users.
- Led complete system reengineering from Electron/React to Rust/Tauri, achieving 25x performance improvement and reducing package size from 500MB to 25MB.
- Architected transition from desktop to secure web-based invoice platform with Java SpringBoot backend, SSO integration, and end-to-end encryption.
- Refactored authentication across 40+ files, replacing Redux with React Context and implementing secure session management.
- Established CI/CD infrastructure reducing deployment time by 60% through parameterized templates and multi-stage Docker configurations.
- Implemented comprehensive testing framework (Cypress + Vitest) achieving 90% code coverage and reducing regression issues by 75%.

Dell Technologies
Cairo, Egypt

Software Engineering Intern — *Feb. 2023 - Feb. 2024*

- Built React frontend with Go microservice backend, increasing data collection effectiveness by 45%.
- Developed JavaScript module for PDF/PPTX conversion, enhancing enterprise reporting capabilities.
- Led refactoring initiative reducing React component from 1,900 to 415 lines (78% reduction) while improving maintainability, and readability.
- Optimized pipeline infrastructure achieving 300% performance improvement, reducing build times from 12 to 4 minutes and saving 160+ engineering hours monthly.
- Modernized application dependencies, reducing bug reports by 40%.

AV Group
Alexandria, Egypt

IT Specialist — *Sep. 2021 - Feb. 2023*

- Managed an IT infrastructure for 10+ professional architects with 99.9% system availability.
- Automated file structure validation using Python, saving 30+ hours per week.
- Deployed automation framework for backups, compliance, and deployments, reducing overhead by 65%.
- Built server infrastructure with RAID 10 + Sophos Firewall, achieving 99.9% uptime.

The Sparks Foundation
Singapore

Web Developer — *Jul. 2022 - Aug. 2022*

- Developed full-stack banking app with Svelte + Supabase, ensuring 100% transaction integrity.
- Built donation platform with RazorPay API, enabling real-time payments & reporting.

Information Technology Institute (ITI)
Alexandria, Egypt

Winter Trainee — *Feb. 2022 - Feb. 2022*

- Built iOS apps in Swift + UIKit, applying MVC principles and native UI design.

Projects

Real-time Targeted Speech Enhancement *Link*
- Graduation project in speech AI; contributed PFFSN and PDenoiser models for speaker-specific enhancement.
- Achieved real-time factor (RTF) of 0.21 and ranked 2nd in DNS Challenge 2023 with PDenoiser model.
- Built real-time GUI desktop app with multithreading + streaming optimizations.
- Collected & curated 83+ hours Arabic dataset (30 speakers) for personalized training.

Monkey Programming Language Interpreter *Link*
- Implemented complete interpreter for Monkey programming language from scratch.
- Added macro system for meta-programming capabilities and REPL for interactive development.
- Supported comprehensive data types: integers, booleans, strings, arrays, hash maps, and closures.
- Extended language with built-in functions and first-class function support for practical programming.

Connect 4 AI Game Engine *Link*
- Engineered sophisticated game engine implementing MiniMax algorithm with configurable depth traversal.
- Optimized algorithm performance through alpha-beta pruning, achieving 2,000% speed improvement at K=6 depth.
- Designed intuitive PyGame UI with advanced configuration options for AI behavior customization.

Certifications

| 2022 | **Advanced Android Kotlin Development**, egFWD | *Certificate* |
| 2022 | **AWS Academy Cloud Foundations**, Amazon Web Services (AWS) | *Certificate* |

Education

Alexandria University *Alexandria, Egypt*
B. Sc. in Computer and Systems Engineering