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Cairo, Egypt

Hossam Bahrawy

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Results-driven iOS Software Engineer II with 6 years of experience in the full mobile development lifecycle, and a strong emphasis on building robust, user-friendly applications. Contributing to all stages of development, from initial design to deployment and post-release optimization.

Work Experience

iOS Software Engineer II	**Microsoft**	**January 2024 – Present**
SwiftKey iOS team	Cairo, Egypt	

- Proactively addressed critical bugs within the keyboard extension, resulting in raising our crash-free user rate from 74% to 97%, as measured by our telemetry data.
- Significantly enhanced typing performance by reducing memory consumption by 80% and minimizing typing hitches by 90% through deep profiling with Xcode Instruments and Memory Graphs.
- Drove a 30% increase in the app store rating (D28) through the implementation of in-app review and survey features, prompting users to star rate the app and collecting user feedback for future improvements.
- I championed accessibility within the team, implementing key features and fixes, securing compliance across features, and raising the internal accessibility rating.
- Revamped SwiftKey App UI with the integration of the Microsoft News Feed, resulting in a 85% increase in DAU.
- Reduced our legacy release pipeline build time by 10-15 minutes through YAML file optimization and caching.
- Worked with and maintained a legacy Objective-C codebase, adding features, fixes and ensuring compatibility and stability as SwiftKey Keyboard offers backwards compatibility until iOS 12.

iOS Software Engineer	**Solutions by STC**	**June 2022 – January 2024**
	Cairo, Egypt	

- Developed a SwiftUI-based passenger application designed to interact with the existing driver application, facilitating direct communication between passengers and drivers.
- Rapidly acquired Flutter proficiency and contributed to the successful development of a customer fleet management application, incorporating complex features such as OCR-based license plate scanning.
- Migrated legacy networking code to modern architecture, incorporating security features such as certificate pinning.

iOS Software Engineer	**Koinz**	**June 2020 – June 2022**
	Cairo, Egypt	

- Continuously engaged in features lifecycle, from grooming and planning to shipping and post-release monitoring.
- Automated the CI/CD pipeline using App Center and TestFlight, streamlining testing and release processes.
- Led the creation and implementation of a new design system, resulting in a streamlined handoff process between design and development teams.
- Utilized Firebase Remote Config and A/B Testing to iterate on feature development, driving data-informed decisions.

Full-Stack Software Engineer	**Haya Solutions**	**April 2019 – June 2020**
	Remote with Mississauga, Canada	

- Worked as a full-stack web developer at a Canadian software outsourcing company.
- Collaborated with the team on building on-demand web-based software solutions for a number of customers.
- Each solution varied according to its nature, and most relied on the integration of two or more platforms.

Technologies and Languages

- **iOS Development:** Swift, Objective-C, UIKit, SwiftUI, Accessibility, Deep Linking, Keyboard Extensions.
- **Networking & Data**: RxSwift, Combine, Alamofire, Socket.IO, Moya, Realm, Push Notifications, RESTful APIs, JSON.
- **Performance & Debugging**: Xcode Instruments, Memory Profiling, Memory Graphs, *vmmap*.
- **Architecture & Design**: MVC, Clean MVVM, Design System, Design Patterns.
- **CI/CD & Tools:** Azure DevOps, App Center, Jira, ClickUp, Figma, Zeplin, Notion, Opsgenie.
- **Testing & Quality**: Unit Testing, UI Automated Testing, SwiftLint.
- **Analytics & Monitoring**: Firebase Crashlytics, A/B Testing, Smartlook, Clarity, Amplitude, WebEngage
- **Security**: Certificate Pinning, jail-break detection, Authentication and Authorization.
- **Cross-Platform**: Flutter, Dart, Android studio, Dio, Provider and Bloc-pattern.
- **SDK Integration:** Firebase (Analytics, Crashlytics, Remote Config, A/B Testing), Google Maps, Payment Gateways (Amazon Payment, Hyperpay, Authorize.Net and Apple Pay).

Projects

- **Microsoft SwiftKey AI Keyboard** [App Store Link]: Microsoft SwiftKey is an intelligent keyboard that learns your writing style, so you can type faster. Microsoft SwiftKey is always learning and adapting to match your unique way of typing alongside a suite of Copilot AI features. *(Technologies: Objective-C, Swift, UIKit, XCUITests, Keyboard Extensions, Xcode Instruments, Memory Graphes, vmmap)*
- **Koinz** [App Store Link]: Online food & beverage ordering app that currently operates in Egypt, Saudi Arabia, and UAE. *(Technologies: Swift, UIKit, Realm, RxSwift, Moya, Remote Config,* Google Maps*)*
- **STC My Fleet** [App Store Link]: Helping organizations manage their fleet operation, which includes real-time tracking, speed tracking, alerts, and notifications. *(Technologies: Swift, UIKit, Realm, RxSwift,* Socket.IO*)*
- **MyFleet Admin**: Built for MyFleet system field operation personnel to speed up the process of managing different customers' vehicles, devices and inventories. *(Technologies: Flutter, Dart, Privider, Dio, OCR)*
- **STC school bus Driver** [App Store Link]: Empowering drivers to easily view and live track their assigned trips, and kids' absence status, and communicate with parents. *(Technologies: Swift, SwiftUI, Combine, Here Maps)*
- **Passenger Application** [App Store Link]: Helping parents track their children's trips to/from school. With notifications upon bus arrival, departure, and route updates. *(Technologies: Swift, SwiftUI, Combine, HereMap)*
- **The Family Sale:** E-Commerce platform for an internal online mega sale for L'Oreal Egypt employees. The site generated over 3 Million EGP in revenue during the internal online mega sale. *(Technologies: React, Material-UI, PaySky)*
- **NACG:** Asset management application for NACG (North American Construction Group) to manage Heavy Construction sites, with built-in real-time chat between site members (managers, engineers, and workers). *(Technologies: React, Material-UI, Feathers.js Client, Socket.io)*
- **Last-Mile Delivery** [GitHub][Video]: Autonomous 4WD Robotic Car capable of delivering products ordered from an web E-commerce system and cross-platform mobile application for Android & iOS (supported by Valeo). *(Technologies: Robotic Car, ROS, Raspberry Pi, Python, React, React-Native, Express, MongoDB)*

Education

- **B.Eng. Computer Engineering**, University of Tanta, Egypt.   **2014 – 2019**