



Elyes Ben Salah

Platform Lead & R&D Manager

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PROFILE

Experienced Software Engineer with an 8-year track record in FinTech startups. Specializing in DLT protocol design, software banking, microservices, and distributed systems. Leading core platform design at ProsperUS from day 0, while also contributing to mobile and backend development, DevOps, and team leadership. Adaptable and proactive, continuously seeking out innovative solutions to optimize performance and product scalability. Committed to driving growth and success in **forward-thinking** organization.

SKILLS

Backend Development (Go, Java, SpringBoot (Cloud, Security, Data, WebFlux), Project Reactor, RSocket, WebSocket, gRPC, NSQ, Kafka.),

Mobile Development (Android : Kotlin, Java, MVVM, MVP, Room, Dagger 2, RxJava(2-3), Jetpack, NDK. iOS : SwiftUI, RxAlamofire, CoreData, RxSwift, Firebase Messaging),

Frontend Development (ReactJS, NextJS, Angular, UmiJS, Redux, AntD),

Infrastructure (AWS (EC2, S3, IAM, RDS, CFN, EBS, ELB, EKS...), Supervisor, NGinx, SystemD, HAproxy, letencrypt, Docker),

CI/CD (Kubernetes, Ansible, Jenkins, ArgoCD, GitlabCI, Sonarqube, Artifactory (jFOG), Groovy, Gradle),

Monitoring (ELK, Logstash, APM, Filebeat, Grafana, Prometheus.),

Database (PostgreSQL, MySQL, RocksDB (KV), MangoDB (NoSQL), Redis),

Cryptography (Libsodium, Bouncy Castle),

Software Architecture (Clean Architecture, Event-Driven, Event Sourcing, CQRS, DDD.),

Design Patterns, Reactive Programming (RxJava 2,3, RxSwift, RxJS, Project Reactor Java),

Consensus Protocols (Raft (*), Byzantine Fault Tolerance (BFT)),

Blockchain (DLT) (Distributed Ledger Technology : Digital Asset Platform built from scratch.)

LANGUAGES

English

Fluent in speaking and writing

French

Fluent in speaking and writing

Arabic

Native

EDUCATION

2013/09 – 2016/05

Ariana, Tunisia

Master of Engineering in Computer Science

Ecole Supérieure Privée d'Ingénierie et de Technologies - ESPRIT

2012/09 – 2013/05

Sousse, Tunisia

Diploma in Robotic and Automation

Higher Institute of Applied Science and Technologies of Sousse (ISSAT Sousse)

2010/09 – 2012/05

Sousse, Tunisia

Undergraduate Engineering Program

Higher Institute of Applied Science and Technologies of Sousse (ISSAT Sousse)

2006/09 – 2010/05

Teboulba, Tunisia

High School Diploma in Computer Science

High School Teboulba



PROFESSIONAL EXPERIENCE

PROSPERUS TECH

2021/07 – present

Platform Lead & R&D Manager

Role :

- Refactoring ProsperUS Platform Protocol & ensuring backward compatibility of old Protocol.
- Managing ProsperUS Infrastructure (AWS, VMs, CI/CD, K8s, etc).
- Code Review
- Unit Tests

Tasks :

- Define platform roadmap
- Technical parts in RFPs
- NFT Project using the new version of Protocol.
- Real-time inter-bank transfer system (CBDC).
- Offline payment.
- Refactoring the ProsperUS Platform Protocol to v2 for more performance and software scalability.
- Refactor Java SDK for Android and Java Backends.
- Refactor Go SDK.
- Refactor Swift SDK for the iOS version.
- Javascript Library for WebSocket over RSocket for frontend apps.
- Introducing new Libraries for Networking(Based on RSocket) & Persistence (Based on RocksDB) to ensure compatibility and Integrity across all the platforms.
- Writing unit tests
- Code review

Features:

- Dynamic Smart Contracts at both Node and Wallet levels.
- Introducing Layer 2 which holds the history of SmartContracts for each node.
- New document for NonFungibleAssets example NFT used for Proof of Ownership of a specific Asset.
- Zero Knowledge Proof (custom zkProof).
- Implementation of Cross-Board Transfer between 2 nodes and atomic swap.
- FX module real-time rates and offers for the assets in the closed network.
- Cross-FX module real-time rates and offers for the assets between nodes.
- Custom implementation of the Raft Consensus Protocol.
- Support for RSocket, low-latency, and asynchronous communication protocol customized for the platform use case to allow wallets to identify and communicate at the TCP layer.
- Upgrade the core platform's data storage infrastructure by replacing it with the robust RocksDB solution.

Technologies: Java (SpringBoot), Go, Swift, RocksDB, RSocket, ReactJS, TypeScript, UmiJS.

2021/03 – 2021/07

Full Stack Mobile App Developer

Role:

- Tech Lead & iOS Developer.

Tasks:

- Platform Protocol Swift version SDK for iOS.
- Mobile Wallet iOS version.
- Forming iOS Team.

Features:

- MVVM architecture.
- Reusable SwiftUI components.
- Reactive application using RxSwift.

	<ul style="list-style-type: none"> • Led the ProsperUS Core-Wallet for iOS. <p>Technologies: CoreData, SwiftUI, RxSwift, Combine, Libsodium(Swift-Sodium), Alamofire (RxAlamofire), MVVM Architecture.</p>
2020/09 – 2021/02	<p>Full Stack Developer</p> <p>Role:</p> <ul style="list-style-type: none"> • Design and Architecture of Evax Platform. <p>Tasks:</p> <ul style="list-style-type: none"> • Development Evax Service on top of the ProsperUS Platform to track COVID-19 vaccinations and issue digital certificates in collaboration with the Ministry of Health and Ministry of Technology (https://citoyen.evax.tn/). <p>Technologies: SpringBoot, Postgres , Java / Kotlin</p>
2020/02 – 2020/08	<p>Full Stack Developer</p> <p>Developed ProsperBill, a payment processing system developed with Spring Boot, which allows users to generate invoices, access multiple payment gateways, and receive payment in their ProsperUS Wallet.</p> <p>Technologies: SpringBoot, Postgres , Java / Kotlin</p>
2019/04 – 2020/01	<p>Full Stack Mobile App Developer</p> <ul style="list-style-type: none"> • Developed TPay app, a digital wallet for Tayara.tn. • Refactored Java libraries, Ansible scripts, and Android App core module to MVVM. • Developed a Swift 5 Library for iOS, similar to the Android Core Library, to communicate with the ProsperUS blockchain platform. <p>Technologies: Java / Kotlin / Swift</p>
2018/09 – 2019/04	<p>Infrastructure Engineer</p> <ul style="list-style-type: none"> • Successful migration of the ProsperUS Blockchain platform from outdated virtual machines to a fully optimized AWS environment. Implemented CloudFormation for seamless infrastructure setup and replaced the Postgres Cluster and S3 storage with RDS, enhancing platform performance and scalability. • Migration of Gitlab Server and setup of CI/CD pipelines using Jenkins. • Writing shared library for Jenkins contain different piplines for each language with Groovy. • Forming Infrastructure Team.
2016/01 – 2018/11	<p>DIGITUS TECH</p> <p>Mobile Software Engineer & Backend Developer</p> <ul style="list-style-type: none"> • DigiCash Mobile Wallet for P2P transfers of stablecoin pTND for LaPoste.tn on top of the DigitUS transaction platform. • Developed the Airtime service with Go for mobile top-up using a Raspberry PI GSM Module and AT Commands. • SSO service JWT based. • CloudWallet is a web-based solution aimed at providing secure management of regular wallets for users. • Integrated Consul as the main service discovery tool and Vault in the ProsperUS platform. • Dashboard for platform monitoring • DBApi is a data warehouse for Dashboard formatting transaction • Gateway API using Spring Boot to regulate traffic from mobile wallets and various microservices. • Bootstrapped Accelex Platform, a data investment analysis platform developed with Spring Boot.