

Walid Siala

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EDUCATION

Mediterranean School of Technology - Medtech

Software Engineering Degree

Tunis, Tunisia

Sept. 2020 – Jun 2025

International School of Carthage

High school Diploma in Mathematics

Tunis, Tunisia

Sept. 2014 – May 2020

EXPERIENCE

AI/ML Researcher Intern

SNT, University of Luxembourg

April 2025 – Present

Luxembourg, Luxembourg

Software Developer Intern

EY

July 2024 – July 2024

Tunis, Tunisia

- Developed a full-stack web application featuring a **React.js** frontend and **ASP.NET Core** backend, enhancing usability and performance, and designed the application's **SQL Server** database, including schema creation, query optimization, and data integrity enforcement.
- Implemented **JWT-based authentication** with **role-based access control (RBAC)**, ensuring secure, scalable, and compliant user management.
- Leveraged **Azure DevOps** for end-to-end CI/CD workflows, including automated builds, testing, and deployments; utilized **Docker** for containerization, **Azure Repos/Pipelines** for efficient version control, and integrated **Prometheus** and **Grafana** for real-time performance monitoring, metric tracking, and system health visualization.

Cloud/Devops Intern

RFC

May 2024 – Jun 2024

Tunis, Tunisia

- Deployed a dynamic web application on **Azure App Service** and integrated it with an **Azure Kubernetes Service (AKS)** cluster, leveraging **Helm charts** and optimized **NGINX Ingress** configuration for high availability, scalability, and efficient traffic routing.
- Designed and automated **CI/CD pipelines** with **GitHub Actions**, enabling rapid, reliable deployments; implemented real-time monitoring and performance tracking using **Application Insights** and **Azure Monitor**.
- Built and enhanced cloud-native solutions on **Microsoft Azure** by developing **Azure Functions**, managing web apps, leveraging **Azure Storage** and **Key Vault**, integrating **Azure AD B2C** for authentication and authorization, and configuring **Azure CDN** for low-latency content delivery.

Software Developer Intern

Access Content Agency

June 2023 – July 2023

Tunis, Tunisia

- Developed an automated data extraction tool using **Selenium** to collect sponsored advertisements from multiple social media platforms, storing results in a **MySQL** database for structured analysis. Deployed the solution on a **Linux** server via **Flask** and scheduled execution with **cron** for continuous operation.
- Built a multi-platform social media posting web application integrating **Facebook Graph API**, **ChatGPT API** for AI-generated captions, and **Midjourney API** for image generation, streamlining content creation and publishing workflows.

Software Developer (Part-Time)

Automato — Startup

May 2023 – Aug 2023

Tunis, Tunisia

- Designed and developed a **customer journey automation feature** for a customer retention SaaS platform, enabling targeted **campaigns** to improve client engagement and retention. Leveraged **Next.js**, **TypeScript**, and the **Amazon Pinpoint API** to create dynamic, event-driven communication flows.
- Completed an intensive **Online Coaching Program** by **GIZ x ZOLLHOF** Startup Incubator, gaining hands-on experience in **Business Design**, **Market Discovery**, **Customer Discovery Prototyping**, and **Market Access** strategies.

Frontend Developer Intern

NeoLedge

May 2022 – Jun. 2022

Tunis, Tunisia

- Translated real client requirements into an interactive **web application design** using **Adobe XD**, applying modern **UI/UX design principles** and iterating on feedback gathered through stakeholder meetings.
- Implemented the front-end application using **Vue.js v2** and **Vuetify**, ensuring responsive layouts, reusable components, and consistent styling aligned with the approved design.

PROJECTS

AIOps-Driven High Availability and Fault-Tolerant AWS Architecture

[GitHub Repository](#)

- * Designed and deployed a **highly available AWS architecture** using **Terraform**, integrating **Auto Scaling Groups** and **Load Balancers** to ensure scalability and fault tolerance. Containerized both frontend and backend services with **Docker** for consistent, portable deployments.
- * Implemented **CI/CD pipelines** with **GitHub Actions** for seamless application delivery, and automated monitoring, logging, and remediation workflows using **Amazon CloudWatch** and **AWS Lambda** to enhance operational reliability.
- * Developed and deployed a **machine learning model** on **AWS SageMaker** to detect anomalies from instance logs, enabling proactive incident management and efficient log analysis through **CloudWatch Insights**.

EVENTY - Event Management System

[Blog Link](#)

- * Collaborated with a team to design and develop a **full-stack event management system** for **Orange Digital Center**, streamlining event planning, attendee check-ins, and post-event feedback through a unified platform. Delivered a **React.js + TypeScript + Tailwind CSS** dashboard, a **Flutter** mobile check-in app, and a **Node.js + Express.js + PostgreSQL** backend.
- * Integrated **QR code-based check-in**, bulk attendee uploads, automated email invitations, and **AI-powered sentiment analysis** for attendee feedback, enabling real-time event monitoring and data-driven insights for organizers.
- * Applied **Agile Scrum** methodology with **Azure Boards** for sprint planning and task tracking; implemented **Vitest** unit tests and **Cypress** end-to-end tests to ensure security, usability, and performance across the system.

Nav-SMU: AR Indoor Navigation App

[Github Repository](#)

- * Developed **Nav-SMU**, an augmented reality indoor navigation application for the SMU campus, providing students with real-time directions and contextual information about nearby facilities.
- * Implemented navigation logic using the **A* pathfinding algorithm** for efficient route calculation and integrated **SceneView AR** to overlay interactive navigation cues in the physical environment.
- * Built the Android application in **Kotlin** with **Android Studio**, leveraging **Firebase** for real-time data synchronization, cloud storage, and user authentication.

SKILLS

Programming Languages: JavaScript, Typescript, Python, Shell, .NET, SQL, C

Frameworks: NextJS, React, Node.js, Express, NestJS, Flask, Vitest

Developer Tools: Git, Github, Docker, AWS, Azure, Kubernetes, Terraform, Prometheus, Grafana

Languages: English (C1 IELTS), French (C2), Arabic(C2), German(A2)

CERTIFICATIONS/ACHIEVEMENTS

- Won a WEHELP Hackathon, showcasing innovative problem-solving and teamwork skills.
- Won a Competitive Programming Hackathon (Compile Combat 2.0), demonstrating advanced coding proficiency and strategic problem-solving abilities.
- Holds an IELTS certificate with a band 7 score, reflecting strong English language proficiency.