

SOBHI EL-SAFADY

SOFTWARE & DATA ENGINEER · EMBEDDED SYSTEMS · FULL-STACK · ERP & AUTOMATION

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PROFESSIONAL SUMMARY

Software and data engineer with experience since 2016 across embedded C/C++, low-level Java protocol stacks, full-stack SaaS, healthcare data pipelines, ERP/MES/PLM integrations, cloud systems, and industrial automation. Builds production APIs, data workflows, mobile applications, distributed services, automated tests, and CI/CD pipelines.

CORE TECHNICAL SKILLS

Languages & Data: C, C++, Java, Python, TypeScript, JavaScript, C#, SQL; PostgreSQL, MySQL, MSSQL, Oracle, MongoDB

Systems & Cloud: SIP, H.248, VoIP, WebRTC, Linux, Docker, AWS, Google Cloud, Jenkins, GitHub Actions, CI/CD

Frameworks: React, React Native, Angular, Next.js, Node.js, Spring Boot, FastAPI, Django, Strapi, REST APIs, microservices

Enterprise & Analytics: ETL/ELT, EMR data extraction, dashboards, ERP, MES, PLM, CAD/COM integrations, testing, monitoring

PROFESSIONAL EXPERIENCE

Polaire Labs — Co-Founder & Lead Software Engineer

Jul 2022 – Present

- Led architecture and end-to-end delivery of real-time streaming, VOD, shipping, and logistics platforms; owned backend APIs, media workflows, integrations, deployment, and client delivery.
- Built ERP solutions and workflow automations, plus a Killark iOS/Android catalog in React Native with FastAPI, PostgreSQL, Strapi, TypeScript, REST APIs, and cloud infrastructure.

Vortex Health Analytics — Software & Data Engineer

Apr 2026 – Present

- Built repeatable ingestion, normalization, and validation workflows for fragmented EMR, billing, scheduling, lab, and legacy data.
- Modeled privacy-conscious healthcare analytics using Python, SQL, APIs, and PostgreSQL.

LEDEX — Technical Project Manager, Software & Automation

Oct 2023 – Present

- Own technical delivery of software and automation for hazardous-location electrical products, industrial lighting, enclosures, and engineered configurations.
- Translate requirements into configuration logic, BOMs, ERP records, procurement and assembly workflows; automate quoting, inventory, documents, supplier coordination, and reporting.

TelcoBridges — Software Engineer Intern

2022; 2023

- Developed embedded C/C++ features in a carrier-grade telephony stack for media gateways, VoIP, and H.248; maintained Python/Ruby Jenkins pipelines and automated system tests.

Pratt & Whitney Canada — Software Engineer Intern

Sep – Dec 2021

- Developed enterprise web features supporting aircraft-engine QA specifications, PLM workflows, engineering documentation, testing, and releases.

Witlaken — Software Developer

Jan 2020 – Sep 2021

- Developed Java ERP, MES, PLM, accounting, and healthcare modules; built Python/SQL automation and integrated CAD, accounting, and external services through REST APIs and COM.

Dialexia — Junior Software Developer

Feb 2016 – Jan 2020

- Implemented RFC-based SIP stack functionality in Java for PBX signaling, UAS, and WebRTC; developed an Android softphone and Django provisioning tools and supported QA and production troubleshooting.

EDUCATION

B.Eng., Software Engineering — École de technologie supérieure (ÉTS)

2020 – 2024

DEC, Computer Science Technology — Cégep de Rosemont

2017 – 2020