

# Islam Magdy Mahmoud

Tech Lead - FinTech - Agentic AI

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## PROFILE

Tech Lead with 15+ years of experience building scalable systems and leading engineering teams. Currently leading mortgage-platform modernization at Nationale-Nederlanden — one of the Netherlands' largest financial institutions — combining hands-on serverless architecture with people leadership across a cross-functional team.

Background spans FinTech, high-traffic e-commerce, and a co-founded ride-hailing startup built from zero to production.

**What I do:** architect and build end-to-end systems — from serverless microservices to legacy modernization — with a focus on performance, scalability, and developer experience. Currently driving agentic AI adoption within my engineering organization.

## CORE STRENGTH

- **FinTech Platform Engineering** — Regulated financial systems, mortgage domain, client-facing financial tools
- **Serverless & Cloud Architecture** — AWS-first, event-driven systems at scale
- **Engineering Leadership** — Cross-functional team leadership, mentoring, technical strategy
- **Legacy Modernization** — Java-to-serverless migrations, incremental replacement strategies
- **E-commerce Systems** — High-traffic retail platforms across the Middle East
- **AI Tooling & Agentic Systems** — Building and driving adoption of AI-powered developer tools in regulated FinTech environments

# TECHNICAL STACK

- **Backend:** Node.js · GraphQL · REST APIs
- **Frontend:** React · React Native · Vue · Svelte, Lit
- **Databases:** DynamoDB, PostgreSQL · MongoDB · Redis
- **Cloud & DevOps:** AWS · Azure · GCP · Firebase · Serverless Framework
- **Testing & CI/CD:** Jest · Playwright · GitHub Actions · GitLab CI · Azure DevOps
- **AI & Agentic:** CrewAI · LLM integration · Agentic CLI design · MCP

# EXPERIENCE

JUL-2022 to Present — Rotterdam, The Netherlands

## NN TECH LEAD

Leading a cross-functional team of 7 — 4 engineers, a UX designer, and customer journey specialists — to modernize mortgage technology at one of the Netherlands' largest financial institutions.

- **Automated loan redemption flows** — Built end-to-end automation covering hundreds of thousands of active loans, including repayment simulations, full redemptions, and yearly overview generation
- **Built and owned Atlas** — An internal agentic CLI (PR reviewer, sprint assistant, backlog assistant) designed and shipped from scratch without a mandate. Runs locally and in CI/CD — now embedded in the team's daily engineering workflow
- **Driving department-level AI capability building** — Designing and facilitating a full-day hands-on CrewAI workshop for ~21 engineers across the mortgage domain, structured around agent-building sprints
- **Eliminated Java maintenance overhead** — Migrated mortgage-servicing components from Java to serverless Node.js, removing the need for a dedicated Java specialist and fully aligning the stack
- **Drove technical strategy** — Established architectural standards and engineering best practices across mortgage domain teams
- **Improved advisor productivity** — Deployed automation tools that reduced manual steps in key daily advisor workflows

DEC-2021 to JUL-2022 — Rotterdam, The Netherlands

## NN SENIOR FULL STACK ENGINEER

Built mortgage management tools giving clients better visibility and control over their loan portfolios.

- **Developed repayment tools** — Built client-facing applications for mortgage repayment simulation and execution
- **Unified tech stack** — Integrated Node.js services with AWS infrastructure for seamless data flow
- **Enhanced UX** — Collaborated with design teams to deliver intuitive client-facing interfaces
- **Optimized performance** — Improved API response times and frontend load speeds

MAY-2018 to JUN-2021 — Istanbul, Turkey | Dubai, UAE | Cairo, Egypt

## VNGRS SENIOR FULL STACK ENGINEER

Delivered high-impact solutions for major retail and e-commerce clients across the Middle East and US, working with globally distributed teams.

Client	Project	Role
Al Tayer Group	Ounass, Nissans, GAP, Mamas & Papas	Full stack development
Majid Al Futtaim	Mall of the Emirates, Mall of Egypt, City Centers apps	Architected server less APIs from scratch
WhatsNeu	E-Commerce Platform Re-engineering	Migration off Shopify to custom solution

- **Built Serverless APIs at scale** — Designed and implemented backend services for consumer mobile apps serving millions of users
- **Cross-platform delivery** — Contributed to both web applications and React Native mobile apps
- **Distributed-first** — Maintained consistent delivery cadence across 3+ time zones for 3 years

FEB-2017 to APR-2018 — Egypt

## SHEENVALUE TECHNICAL LEAD

Led engineering for a K-12 education technology platform.

- **Led engineering team** — Managed engineers building front-ends and back-ends for Sheenvalue's education products
- **Built educational apps** — Curriculum and Student Management system for K-12 schools
- **Shipped mobile** — Built StoryFile mobile app using React Native
- **Established standards** — Introduced solid engineering practices, code review culture, and development tooling

FEB-2016 to FEB-2018 — Egypt

## HATAXI CO-FOUNDER & TECHNICAL LEAD

Weekend startup! Co-founded a ride-hailing startup and built the entire technical infrastructure from zero to production.

- **Built from scratch** — Architected high-throughput APIs, real-time driver matching, and operations admin console
- **Location services** — Implemented MongoDB geospatial queries for real-time driver tracking and matching
- **Scalable infrastructure** — Designed system to sustain production-grade load at peak concurrent usage

AUG-2015 to JAN-2017 — USA

## SKYKODE TECHNICAL LEAD

Led development of KodingLab — an educational SaaS platform for computer science programs at colleges and universities.

- **Built from scratch** — Architected the entire platform foundation: browser-based IDE, auto-grading engine, real-time student-instructor collaboration
- **Led distributed team** — Managed engineers in Egypt; established coding standards and development workflows
- **Knowledge transfer** — Coached team members on modern technologies, code quality, and engineering best practices

— *Earlier experiences* —

2016 (1-2 months) — Egypt

**EL-MENUS** SR. FRONT-END ENGINEER

Short-term contract with Egypt's leading restaurant discovery platform. Built the entire search module from scratch.

MAY-2014 to AUG-2015 — Egypt

**MOSTAQQEL** SR. FRONT-END ENGINEER

Led front-end for Egypt's first freelancing platform (later became Worcbox). Early adopter of Web Components (Polymer); implemented real-time WebSocket features.

JUL-2011 to MAY-2014 — Egypt

**NILECODE** SR. FRONT-END ENGINEER

First professional role after freelancing. Mastered JavaScript, built projects from scratch, and rescued mid-flight deliveries.

2008 to JUL-2011

**FREELANCE** FRONT-END ENGINEER

Various projects with clients across Egypt, Saudi Arabia, and the US.

## PROJECTS

For a full list of the projects I've worked on, and for more information, please check my LinkedIn profile: <https://www.linkedin.com/in/imagdy/>

THANK YOU