

Hamza El Rachdi

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EDUCATION

American University of Beirut - 4.0 GPA

Bachelor of Science in Computer Science

Beirut, LB

Aug. 2024 – June 2027

- Full-ride merit scholarship from university and partners.

EXPERIENCE

Kerrigan Robotics

Santa Clara, US Remotely

Part Time Software Engineer

Oct. 2025 - Present

- Designed and shipped a multi-agent harness with HITL for an AI IDE that takes AGV workflows from natural-language spec to deployed control script running through sandboxed execution in Kubernetes-provisioned containers.
- Deployed the AI IDE and a LiteLLM proxy into the platform's Kubernetes cluster with Pulumi and Terraform, so the full AI stack deploys with the platform to cloud or on-prem environments.

Software Engineering Intern

Aug. 2025 – Oct. 2025

- Built an AI IDE prototype (Next.js, E2B sandboxes) that wrote, executed, and previewed robot-control code against a simulated fleet-management instance.

GEOAI Group

Mansourieh, LB

Software Engineering Intern

May 2025 – Jul. 2025

- Hardened a distributed JavaScript system by building unit, integration, and E2E test suites, raising test coverage from 0% to 86%.
- Improved long-term code reliability by integrating automated tests, SonarQube static analysis, and ESLint checks into CI/CD pipelines.
- Deployed a private GeoServer instance over VPN and exposed public WFS/WMS access through a Node.js proxy managed with PM2 and Nginx on AWS EC2.

PUBLICATIONS

E-portal: A Smart Computer Vision System for Face Detection and Recognition in Residential Buildings

Proceedings of ACTEA'25, IEEE

2025

ACHIEVEMENTS

1st Place Winner, “Breaking Barriers: Code for Inclusion” Hackathon

Talal and Madiha Zein AUB Innovation Park (iPark)

- Secured 1st place among 17 teams with GlutenPeek, an AI-powered platform for ingredient recognition and food tracking, that improves accessibility for celiac patients.

SELECTED PROJECTS

Vibe | Next.js, tRPC, Prisma, PostgreSQL, Inngest AgentKit, E2B, OpenAI, Docker

- Built an Agentic AI-powered app generator to create and live-preview web applications in isolated E2B sandboxes.

AUB Clubs | Next.js, tRPC, Prisma, PostgreSQL, MCP, Inngest AgentKit, FastAPI, Docker, GKE

- Unified all 96 AUB student clubs onto one platform with admin dashboards for member management, metrics export, and an AI event-planning agent with human-in-the-loop approval.
- Built the student experience: a hybrid recommendation feed, a unified calendar merging class schedules and club events, an AI assistant backed by a custom MCP server, and multimodal moderation of posts and comments.
- Containerized all services and automated staging/production rollouts on GKE with Kluctl and GitHub Actions.

SKILLS

Languages: TypeScript, Python, Go, Java, JavaScript, C/C++, Swift, SQL

Frameworks & Libraries: React, Next.js, Node.js, Express.js, tRPC, GraphQL, Tailwind CSS, Android SDK, SwiftUI

Cloud & DevOps: AWS, GCP, Kubernetes, Docker, Terraform, Pulumi, GitHub Actions, Nginx

Testing & Quality: Playwright, Jest, SonarQube

Focus Areas: AI Engineering (LLM, Multi-Agent & RAG Systems), Full Stack Development (Web & Mobile)