LA STARTUP STATION

INTERNSHIP REPORT

Development of Conversational AI Agents and Technical Assistance

Period: 6 months

Location: Casablanca, Morocco

Mohamed Meksi

- **AI Agent Builder** @ StartupSquare
- **Technical Assistant** @ Geeks Institute

Sommaire

Introduction

This internship report presents my experience as an AI Agent Builder at **StartupSquare** (LaStartupStation ecosystem) and Technical Assistant at **Geeks Institute** in Casablanca, Morocco.

During this period, I had the opportunity to actively contribute to the LaStartupStation ecosystem by developing key features for StartupSquare, while providing technical support to the Full Stack and GenAI cohorts at Geeks Institute. My work focused on developing advanced conversational AI agents, automating complex processes, and offering pedagogical support to participants.

This internship allowed me to put into practice my skills in Full Stack Development and Artificial Intelligence, while developing new abilities in pedagogy and technical event organization. I notably developed two major conversational AI assistant projects for WhatsApp, organized and supervised 9 hackathons, and supported participants daily throughout their learning journey.

This report is structured into three main parts that reflect all of my contributions:

Introduction

- **My Overall Impact**: presents statistics and quantitative results of my involvement, including the organization of 9 hackathons and my active participation in cohort support.
- **My Technical Roles**: details my responsibilities as a Technical Assistant for the GenAI and Full Stack cohorts, including main tasks and additional missions.
- **Featured Projects**: showcases the two flagship projects I developed (WhatsApp-AI-V1 and WhatsApp-AI-V2), presenting for each the identified problem, the solution implemented, and the measurable impact obtained.

This experience was particularly enriching, both technically and pedagogically, and allowed me to contribute significantly to improving processes and supporting the training of future developers.

Statistiques

HACKATHONS
9

HEURES
+36

TOTAL
324

WHATSAPP AI-V1
24/7

WHATSAPP AI-V2
6 Étapes

LESS MANAGEMENT TIME
+80

LANGUAGES
3

My Overall Impact

Hackathon Statistics

9 hackathons organized (36h each)
- 6 Full Stack hackathons
- 1 Game Dev hackathon
- 2 GenAI hackathons

Roles & Responsibilities

- Technical organization & continuous support
- Advanced guidance on GenAI projects
- Jury member: technical evaluation
- Professional feedback for each team

Active Participation

Active participation in hackathons and support for the cohorts at Geeks Institute

My Technical Roles

2.1 Technical Assistant – GenAI Casablanca

Main Tasks

- One-on-one support to unblock participants
- Weekly project supervision every Friday (A → Z) with final pitch
- Development of hard skills and soft skills

Additional Missions

- General technical support for participants
- Verification and validation of submitted projects
- Correction of AI errors (API, models, prompts)
- Fast feedback to improve deliverable quality
- Monitoring progress and compliance with guidelines
- Technical assistance with GenAI models and APIs

My Technical Roles

2.2 Technical Assistant – Full Stack Casablanca

Main Tasks

- Technical support for participants
- Help understanding lessons and exercises
- One-on-one support to unblock participants

Additional Missions

- Verification and validation of projects
- Correction of technical errors (frontend / backend)
- Assistance with APIs and databases
- Git/GitHub support (push, pull, branches, conflicts)
- Fast feedback to improve code quality

Featured Projects

3.1 WhatsApp-AI-V1

Subtitle: Conversational AI Assistant for Geeks Institute

The Problem

The Geeks Institute program receives a large volume of messages on WhatsApp. Responding manually requires a lot of time, leads to mistakes, limits availability, slows registrations, and complicates data management. Additionally, users write in multiple languages, making support even more difficult.

My Solution

I developed WhatsApp-AI-V1, an intelligent virtual assistant capable of:

- Automatically responding 24/7
- Understanding French, English, and Arabic
- Guiding users step-by-step through registration
- Collecting all required information (name, email, phone...)
- Presenting training programs and details

Featured Projects

- Automatically saving data to Google Sheets
- Maintaining conversation context
- Providing a smooth, fast, and consistent experience

Impact

Statistics:

- 80%+ reduction in management time
- 100% 24/7 response rate
- 3 supported languages

Benefits:

- Faster, complete, and organized registrations
- Immediate support in the user's language
- Stronger professional image
- Scalable and stable system

Featured Projects

3.2 WhatsApp-AI-V2

Subtitle: Complete Conversational System

The Problem

WhatsApp-AI-V1 already provided a first solution, but several limitations appeared as the number of users increased: less modular architecture, limited conversational history, difficulty adding new features, insufficient scalability for intensive usage, and less structured internal tools.

My Solution

- To address these limitations, I developed WhatsApp-AI-V2, an improved version based on a fully modular architecture:
- Modular architecture (services, routes, tools, middlewares)
- 17 business tools compatible with OpenAI Function Calling
- More stable conversation context
- Dual databases: Firestore + MongoDB
- Professional 6-step conversational workflow
- Enhanced security (webhook validation, rate limiting)

Featured Projects

- Faster asynchronous processing
- Better separation of responsibilities
- System easy to extend and evolve

Impact

Statistics:

- 17 integrated business tools
- 6 workflow stages
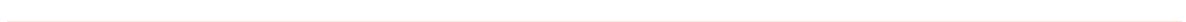- 2 databases (Firestore + MongoDB)

Benefits:

- Significant reduction in management time
- 100% response rate through automation
- Error-free registration workflow
- Smooth support in French, English, and Arabic
- Better accuracy thanks to dedicated tools
- Centralized data via Firestore, MongoDB, and Sheets
- Simplified maintenance and improved performance

Conclusion

This internship at StartupSquare and Geeks Institute has been a particularly enriching experience, allowing me to develop my technical skills while contributing concretely to improving processes and supporting the training of future developers.

Contact

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