



School of Science and Engineering

Exit Portfolio

Submitted in

Summer 2024

by

M'hamed Alghali Joudary

Degree Plan: All courses completed

CV in French:

M'HAMED ALGHALI JOUDARY

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EDUCATION

Bachelor de Science en Informatique
Al Akhawayn University in Ifrane
2020 - 2024 Ifrane
Mineur en Communication
Cours Importants: IoT and Big Data Streaming, Database Systems, Agile Software Engineering and DevOps, Cybersecurity

Semestre d'échange
Pusan National University
Sep 2022 - Dec 2022 Busan, Corée du Sud

Baccalauréat
Group Scolaire Azzaitoune
Juillet 2022 Settât

EXPÉRIENCES

Logigroup
Stage
Juin 2024 - Septembre 2024
Participation à la conception et au développement de plusieurs applications clients.

Assistant du Professeur
2 Semestres
J'ai aidé un professeur à noter des examens, à les surveiller et à créer des exercices et du matériel pour la classe.

Assistant de recherche
Avril 2024
Je mène une recherche sous la supervision d'un professeur sur les utilisations du Tiny Machine Learning dans le secteur de la santé.

PROJETS

Sme3ni
Kotlin TensorFlow Mediapipe
Avril 2024
Projet de fin d'études pour traduire le langage de signes Arabe à l'aide d'une application mobile.

Mihnaty
React Native Express.js PostgreSQL
Decembre 2023
Dirigé une équipe dans la création d'une application mobile pour la location de services.

ACCOMPLISSEMENTS

Global Korea Scholarship (GKS)
Sélectionné parmi 250 étudiants internationaux pour bénéficier de la bourse GKS couvrant le billet d'avion, les frais de scolarité et divers autres frais.
Dean's List
4 Semestres
Avoir une moyenne cumulative de 3,5/4 ou plus pendant 4 semestres consécutifs.
Al Akhawayn University Merit Based Scholarship
A reçu une bourse basée sur le mérite couvrant certains frais de scolarité à l'Université Al Akhawayn.

COMPÉTENCES

Autonomie Gestion du temps
Esprit d'équipe Leader
JavaScript (React, React Native, Node)
Java (Native, SpringBoot, FXML)
Kotlin Python (Native, Django)
PSQL, MongoDB C# (ASP.Net Core)
Machine Learning (MLP, CNNs, TinyML)
Git Adobe Photoshop Adobe Illustrator

LANGUES

Arabe (Natale) ● ● ● ● ●
Anglais ● ● ● ● ●
Français ● ● ● ● ●
Coréen ● ● ● ● ●

CENTRES D'INTÉRÊT

Participation au Neo Hackathon 2022 à l'Université Al Akhawayn.
Aime lire et jouer du piano.

CV in English:

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EDUCATION

Bachelor's of Science in Computer Science
Al Akhawayn University in Ifrane
2020 – 2024 Ifrane
Minor in Communication Studies
Relevant Coursework: IoT and Big Data Streaming, Database Systems, Agile Software Engineering and DevOps, Cybersecurity

Exchange Semester
Pusan National University
Sep 2022 – Dec 2022 Busan, South Korea

High School Diploma
Group Scolaire Azzaitoune
July 2022 Settat

EXPERIENCE

Logigroup
Internship
June 2024 - September 2024
Participated in the conception and development of multiple client applications.

Professor's Assistant
2 Semesters
Helped a professor grade quizzes, proctor exams, and create exercises and material for the class.

Research Assistant
April 2024
Currently conducting research under the supervision of a professor on existing approaches for sign language translation using AI

PROJECTS

Sme3ni
Kotlin TensorFlow Mediapipe
April 2024
My capstone project to translate Arabic Sign Language using a mobile application

Mihnaty
React Native Express.js PostgreSQL
December 2023
Led a team in making a mobile application for service renting.

ACHIEVEMENTS

Global Korea Scholarship (GKS)
Selected out of 250 international students to benefit from the GKS scholarship covering airfare, tuition, and various other costs.

Dean's List
4 Semesters
Had a GPA of 3.5/4 or more for 4 semesters.

Al Akhawayn University Merit Based Scholarship
Received a merit based scholarship covering some tuition costs at Al Akhawayn University.

SKILLS

Autonomous Time Management
Team Spirit Leader

JavaScript (React, React Native, Node)
Java (Native, SpringBoot, FXML)
Kotlin Python (Native, Django)
PSQL, MongoDB C# (ASP.Net Core)
Machine Learning (CNNs, TinyML)
Git Adobe Photoshop Adobe Illustrator

LANGUAGES

Arabic (Native) ●●●●●●●●

English ●●●●●●●●

French ●●●●●●●●

Korean ●●●●●●●●

MISC/INTERESTS

Participated in the NeoHackathon 2022 at Al Akhawayn University.
Enjoys reading and playing piano.

Motivation Letter in French:

Cher Responsable du recrutement,

Je vous écris pour postuler au poste d'ingénieur en développement C# /. NET chez Logigroup tel que décrit dans l'offre d'emploi. Ayant une solide formation en développement logiciel, je souhaite apporter ces compétences à votre organisation prestigieuse pour aider les clients de Logigroup dans leurs efforts de digitalisation.

En tant que récent diplômé en informatique, j'ai acquis des expériences concrètes dans différents domaines du développement logiciel. J'ai appris à répondre aux spécifications des clients chez Logigroup lors de mon stage, où j'ai développé une plateforme de gestion immobilière en utilisant PHP CodeIgniter. De plus, j'ai travaillé sur le développement et l'optimisation d'une application web basée sur Joomla, où j'ai corrigé les erreurs SEO et amélioré la performance globale.

Ma maîtrise de C# et d'ASP.Net, ainsi que mon expérience avec les méthodologies de développement logiciel les plus populaires, y compris Scrum et le cycle en V, me placent dans une excellente position pour contribuer au succès de Logigroup. J'ai de bonnes connaissances en systèmes de gestion de bases de données, et mon expérience avec les systèmes de contrôle de version tels que Git et TortoiseSVN a renforcé ma capacité à gérer le code et à travailler en équipe.

Ce qui me motive particulièrement à rejoindre Logigroup, c'est votre esprit d'innovation et le dynamisme de votre environnement de travail. L'opportunité de participer à la mise en œuvre de nombreux projets riches et diversifiés, tant au niveau national qu'international, correspond parfaitement à toutes mes attentes professionnelles. Avec mes compétences techniques ainsi que ma maîtrise du français, je suis convaincu de pouvoir être un atout précieux dans ce poste et de contribuer de manière significative au succès de l'équipe.

Je suis impatient de contribuer à la croissance de l'entreprise et je serais ravi de discuter de la manière dont je pourrais aider Logigroup. Dans l'attente de votre retour, je vous prie d'agréer, Madame, Monsieur, l'expression de mes salutations distinguées.

Cordialement,

M'hamed Alghali Joudary.

Motivation Letter in English:

Dear Hiring Manager,

I am writing to apply for the C# /. NET development engineer position at Logigroup as described in the job posting. Having a background in software development, I would like to bring that into your esteemed organization to help Logigroup's clients in their digitization efforts.

As a recent holder of a degree in Computer Science, I have had real life experiences in the different areas of software development. I was able to learn how clients' specifications are met at Logigroup, when I interned, and developed a real estate management platform using PHP CodeIgniter. Moreover, I worked on the development and optimization of a Joomla based web application, where I corrected the SEO errors and enhanced the overall performance.

My proficiency in C# and ASP.Net and experience of working with the most popular software development methodologies including Scrum and V-model put me in an excellent position to enhance Logigroup's success. I have good knowledge of database management systems and my experience with version control systems such as Git and TortoiseSVN have enhanced my ways of managing code and handling teams.

Some reasons that make me keen to work at Logigroup are their innovation and the dynamic nature of the workplace. The chance to participate in the implementation of numerous and very interesting projects, both locally and internationally, satisfies all my professional expectations. With my technical skills as well as mastery of French, I am positive that I will be most useful in this position and greatly contribute towards the team's success.

I am eager to help the company grow and therefore would be more than grateful to discuss how I can help Logigroup. I look forward to hearing back from you.

Best Regards,

M'hamed Alghali Joudary.

Project Abstracts

Project 1: DIBTS

Course: CSC 3326 Database Systems

Course Instructor: Dr. Lamiae Bouanane

Semester: Spring 2023

Abstract:

DIBTS, or Dining Information and Business Tracking System, is a sales tracking system designed to facilitate students experience when ordering from on campus dining services, and for the restaurant to keep track of these orders and sales.

With a user-friendly interface and real-time sales tracking, the project will make it easier for students to order food and for restaurant managers to manage sales and inventory.

The goal for this project is to streamline the sales tracking system for AUI's restaurant and provide students with a user-friendly and reliable interface from which they can order. This application will greatly improve efficiency in the restaurant as well as improve customer experience by cutting down on wait times for students.

The web application has a React and Tailwind frontend with a backend made in Node.js using Express and PostgreSQL database.

Project 2: Mihnaty**Course:** CSC 4309 Agile Software Engineering and DevOps**Course Instructor:** Dr. Houda Chakiri**Semester:** Spring 2023

This is a mobile app that connects users to a range of services. From getting a good babysitter, a decent plumber, an efficient tutor or other service providers, the application plays the role of a middleman between the service seeker and the provider.

In this project, the client-server architecture was used to create an efficient and organized system. On the client side, the mobile application is created using React Native and Expo, which gives possibilities of deployment on both iOS and Android.

On the server side, Node.js with Express.js is used to build a reliable back-end. Express acts as the entry point of the application for receiving the incoming requests, executing the major business logic, and performing interactions with the Supabase database.

User Authentication was handled by Supabase Authentication which safely manages user credentials and helping with features such as login, sign-up, and actions related to the user accounts.

Project 3: Sme3ni**Course:** CSC 4402 Capstone Design**Supervisor:** Dr. Yousra Chtouki**Semester:** Spring 2024

This project presents a mobile application developed in Kotlin specifically designed to enhance communication for the hearing-impaired by translating Arabic Sign Language (ArSL) into readable text and spoken words into text in real-time. Utilizing the advanced capabilities of Google's MediaPipe, the application accurately extracts 21 distinct hand landmarks from video inputs. These landmarks are used to train a Multilayer Perceptron (MLP) model, which achieved an validation accuracy of 96%. The model was developed using TensorFlow and then was optimized for mobile devices through TensorFlow Lite, allowing for on device processing while being internet independent.

The app provides real time translation, improving communication for individuals with hearing difficulties. It is tailored to function on a variety of Android devices making it widely accessible and dependable. The user interface is intuitive providing feedback and results to aid in everyday conversations. This initiative not only seeks to close the communication barrier for those with hearing impairments but also aims to incorporate them into the digital world by equipping them with a tool to enhance their autonomy and social engagement.