Manal Mehdaoui

PROFILE

Full name: Manal Mehdaoui
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EDUCATION

Al Akhawayn University   **Ifran, Morocco**
B.S. in Computer Science   *Expected Graduation, Dec 2024*

- o **Concentrations:** Computer Science
- o **GPA:** 3.80/4.00
- o **Graduating project:** Lifeline: Emergency Services App is a mobile application that leverages machine learning to provide one-click access to emergency services, such as police, firefighters, and ambulances, based on the user's location. It optimizes emergency service recommendations through machine learning algorithms and features maps for nearby hospitals and police stations, real-time weather and air quality updates, disaster reporting capabilities, and chatbot assistance for first aid information.

EXPERIENCE

Seaside Sustainability   **Massachusetts, USA**
Software Engineer Intern (Remote)   *Aug 2024– Current*

- Working with Wix, Python, and full-stack development to revamp different company's websites.
- Enhancing site performance, functionality, and user experience through responsive design and efficient backend integration.
- Developing tech solutions for environmental outreach programs, focusing on sustainability initiatives that leverage algorithmic strategies to promote eco-friendly practices.

Yazaki Corporation Morocco   **Tangier, Morocco**
Software Engineer Intern   *June 2024– Sep 2024*

- Developed and maintained HR software for managing employee and corporate information using the MERN stack.
- Used MongoDB for robust data storage, Express.js for backend logic, React for dynamic front-end interfaces, and Node.js for server-side operations.
- Applied problem-solving skills to transition the HR department to the new software, optimizing data management and user experience.
- Used machine learning algorithms to streamline data processing and improve overall system functionality.

Sports Media Inc.   **Colorado, USA**
Software Engineer -Computer Science Intern   *May 2024– Sep 2024*

- Developing and maintaining the company website, BuySportsMedia, which sells merchandise, resulting in a 20% increase in online sales.
- Implemented machine learning solutions to analyze user data, enhancing social media interactions and driving user engagement.
- Created a chatbot for the company's website using the Natural Language Toolkit and a Naive Bayes classifier for intent recognition
- Integrating a chatbot into the website to improve customer engagement and support, which increased user interaction by 30%.

Al Akhawayn University   **Ifran, Morocco**
Research Assistant   *Jan 2024 – July 2024*

- Investigating On-Policy vs. Off-Policy Deep Reinforcement Learning for optimizing resource allocation in Open Radio Access Networks (ORAN).
- Developed simulation models using Python, contributing to ongoing research efforts that explored algorithmic efficiency and its impact on resource management for real-time applications.

Terabyte Software   **Kenitra, Morocco**
Software Development Engineering & Scrum Master Intern   *June 2023 – Aug 2023*

- Contributed significantly to the development of Terabyte's website using React, Node.js, JavaScript, and MySQL, delivering a high-performance, scalable web application.

- Resolved complex technical issues, enhancing codebase stability, and reducing bugs, resulting in a 15% improvement in overall system reliability.
- Led Agile practices as Scrum Master for a diverse team, overseeing sprint planning, retrospectives, and daily stand-up meetings to improve project efficiency using Azure DevOps and Trello.

Al Akhawayn University   **Ifran, Morocco**

Teaching Assistant   *Sep 2022– Jan 2023*

- Graded homework assignments for a mathematics professor, assigning grades based on student performance, contributing to a fair and transparent evaluation process.
- Helped answer students' questions and fostered a supportive learning environment.

RESEARCH EXPERIENCE AND INTERESTS

Al Akhawayn University   **Ifran, Morocco**

Research Assistant   *Jan 2024 – July 2024*

- Dynamics of Resource Allocation in O-RANs: Investigated Deep Reinforcement Learning (DRL) models, including Proximal Policy Optimization (PPO) and Sample Efficient Actor-Critic with Experience Replay (ACER), for optimizing resource allocation in Open Radio Access Networks (O-RAN), demonstrating their superiority over traditional algorithms.

Individual Research Project   *Jan 2024 – May 2024*

- Predictive Modeling for Gestational Diabetes: Collaborated under Dr. Amine Amar to develop a predictive model for gestational diabetes using various machine learning algorithms, achieving a top accuracy of 75.5% with support vector machines (SVM) after model optimization.

Research interests: Machine learning applications, algorithm development, and optimization techniques. Focus on reinforcement learning, decision-making in dynamic environments, and balancing exploration and exploitation. Passionate about using machine learning for positive societal impact, especially in healthcare, and enhancing sustainability and efficiency in technology.

TECHNICAL SKILLS

Frameworks: React JS, Express.js, Spring Boot, React Native

Languages: C, C#, Java, Python

Web Development: HTML, CSS, JavaScript, PHP, Bootstrap

Game Development: Unity 3D, Unity 2D

Database: PostgreSQL, MySQL, MongoDB, Firebase

Other: Node.js, Git, Eclipse, R, Agile, Visual Studio, Expogo, Axios

ACADEMIC ACHIEVEMENTS AND QUALIFICATIONS

- **Dean's List**
  - **Award Level:** Dean's List
  - **Date:** For every semester starting (Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023)
  - **Institution:** Al Akhawayn University
- **President's List**
  - **Award Level:** President's List
  - **Date**: Fall 2020, Spring 2024
  - **Institution**: Al Akhawayn University
- **Merit Scholarship**
  - **Date:** Fall 2020 – Fall 2025
  - **Institution**: Al Akhawayn University

EXTRACURRICULAR ACTIVITIES

- **Organizer, Internship Fair**
  - **Role:** Organizer
  - **Date:** Spring 2023
  - **Institution**: Al Akhawayn University
  - **Description:** Coordinated and managed the organization of the internship fair on campus, including liaising with companies, organizing event logistics, and facilitating interactions between students and potential employers.
- **Chess Club Participation**
  - **Start Date:** Fall 2021

- **Finish Date:** Current
- **Institution:** Al Akhawayn University
- **Description:** Actively participated in the Chess Club, engaging in strategic discussions and tournaments. Contributed to the club's activities and events, fostering a community of chess enthusiasts and enhancing personal strategic thinking skills.
- **Sustainability Initiatives during Internship**
  - **Title:** Software Engineer Intern
  - **Start Date:** August 2024
  - **Finish Date:** Current
  - **Institution:** Seaside Sustainability
  - **Description:** Contributed to sustainability initiatives by developing and implementing software solutions aimed at promoting environmental sustainability. Engaged in projects that enhanced the company's sustainability efforts and supported eco-friendly practices.
- **Sustainability Club Participation**
  - **Title:** Member of the club
  - **Date:** Spring 2023 – Current
  - **Institution:** Al Akhawayn University
  - **Description:** Participated in the Sustainability Club, engaging in activities and projects focused on promoting environmental awareness and sustainable practices.