

# Ziyad Mourabiti

## Curriculum Vitae



<https://mourabitiziyad.dev>  
[mourabitiziyad@gmail.com](mailto:mourabitiziyad@gmail.com)  
<https://github.com/mourabitiziyad>  
<https://www.linkedin.com/in/ziyadmourabiti/>

## RELEVANT WORK EXPERIENCE

MAY 2024 – NOW (PT)  
Fortiss Research Institute — Munich, Germany  
**Working Student Researcher: AI/ML Engineer**  
Project Support on RESONANCE (Replicable and Efficient Solutions for Optimal Management of Cross-sector Energy), for creating a software framework for plug-and-play development of solutions for demand-side flexibility management of distributed and small-scale assets.

JUN 2023 – MAR 2024 (PT)  
Quasara Startup — Munich, Germany  
**Working Student: Full-Stack Software Developer**  
I Led development of Plato 2.0, an online platform for semantic search on large image datasets (100k - 1m+) and other functionalities such as clustering and similarity detection. using Nextjs, FastAPI, and AWS.

SEP 2022 – MAY 2023 (FT)  
Al Akhawayn University — Ifrane, Morocco  
**Adjunct Laboratory Assistant of Computer Science**  
I renewed and taught new material for relational databases, with emphasis on real-world use cases that involve design, processing, and modern implementation. The lab material also spanned practical experience in creating full-stack applications with distributed databases.

FEB 2022 – JUN 2022 (FT/REMOTE)  
Groupe Renault — Casablanca, Morocco  
**Software Engineering Intern**  
Requirements Engineering work that included user research, product brief, and tangible requirements for a cross-platform mobile application and transitioning to technical software requirements in SCRUM.

JAN 2021 – OCT 2021 (PT)  
neoCedrus — Al Akhawayn University  
**Software Developer (Full Stack)**  
Worked on university and Moroccan Government projects that span data analysis and software engineering best practices.

## SELECT PROJECTS

### DelayBahn – 2023

Website that allows users to make travel arrangements while receiving insights on potential delays based on historical data for over 2 million trips. Uses Nextjs 13 with T3 Stack (Typescript, Tailwind, tRPC) and Cron-jobs for scraping Deutsche Bahn (DB) data.

### Capstone Project – Magic Bitboards Chess Engine 2022

C++ Engine featuring efficient move generation through bitboards and bit shifting operations, the use of Magic Bitboards for pre-calculating sliding piece attack tables. Negamax with Alpha-Beta Pruning, Principle Variation Search, Quiescence Search, MVV-LVA, Move Ordering, Zobrist Hashing, and Transposition Tables.

### DataStorm – 2021 (Selected Project from neoCedrus)

Internal data analysis and visualization web app for students' academic and performance information. It acts as a tool to view and assess students' overall college performance and anomalies or academic risks. Uses Angular, Express, and MongoDB.

### Use of NLP & Word Embeddings in Foreign Policy Analysis – 2020

Research Project about current contributions and illustration of how Natural Language Processing can improve the accuracy of quantitative and qualitative FPA approaches.

## EDUCATION

2023 – NOW **Masters of Science**  
Data Engineering and Analytics  
Technical University of Munich  
2018 – 2022 **Bachelor of Science**  
SUMMA CUM LAUDE – 3.74 CGPA  
Computer Science  
Al Akhawayn University in Ifrane

## AWARDS

2020, 2021 **President's List 2x – Dean's List 3x**  
School of Science & Engineering, AUI  
2018 **Full Tuition Scholarship Award**  
Al Akhawayn University in Ifrane

## TECHNICAL SKILLS

PROGRAMMING T3 Stack (tRPC, Tailwind, Typescript),  
Prisma, React Query, Next, Node,  
Angular, Git, Strapi, Github Actions  
PRODUCTION & AUTOMATION Photoshop, Indesign, Premiere Pro,  
Illustrator, Figma, Adobe XD, MS Office  
PowerAutomate, PowerApps, PowerBI  
ANALYSIS Python, Numpy, Pandas, Excel, SQL

## COMMUNICATION SKILLS

LEADERSHIP PR & COM Stud. Gov. Assoc. 2020  
TEDxAUI President 2019