Ayoub Bouchama

Engineering Student

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Toulouse, France
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PROFILE

As an avid learner and highly motivated individual, I am a digital science engineering student with a strong aptitude for programming and mathematics. I am highly adept at applying my knowledge and creative thinking abilities to solve complex problems. I have a demonstrated history of deconstructing and reconstructing various systems and devices, allowing me to gain a thorough understanding of their inner workings. I am currently seeking a new opportunity that will allow me to utilize my skills and further enhance my professional experience.

EDUCATION

September 2022 – present
Toulouse, France

Engineering Student in digital science
INP-ENSEEIHT ('École nationale supérieure d'électrotechnique, d'électronique, d'informatique, d'hydraulique et des télécommunications')
Currently, I am diligently studying all aspects of digital technology, and am proficient in computer science. I am eager to continue learning and expanding my knowledge in this field, and am dedicated to applying my skills and abilities towards the development of innovative solutions.

September 2020 – July 2022
Fez, Morocco

A two-year intensive preparation course for competitive entrance exams to the top engineering schools ('les Grandes Ecoles') in France
CPGE MOULAY DRISS FES
It has been two years full of hard work and dedication, enabling me to reach my current level of achievement. I am committed to continuing to apply myself with diligence and seriousness in order to advance and reach my goals.

September 2019 – July 2020
Fez, Morocco

High School diploma
BENSOUDA HIGH SCHOOL
The work was continuous and represented the culmination of my studies. I am proud of the dedication and hard work I put in, and am grateful for the opportunity to have reached this point in my education.

PROFESSIONAL EXPERIENCE

2021 – present
Fez, Morocco

Python & Mathematics Tutor
I assisted students in adapting to the Python programming language, providing guidance and support as they learned to navigate its complexities and utilize its capabilities.
I have been able to significantly enhance the mathematical abilities of my students by providing them with personalized guidance and support, helping them to understand complex concepts and develop their skills to a higher level.
I have noticed a marked improvement in the students' abilities in mathematics and Python over the course of our tutoring sessions. They have demonstrated a strong grasp of the concepts covered, and their performance on exams and assignments at school has reflected this. I am pleased to see that their hard work and dedication to their studies has paid off in the form of positive results. It has been a pleasure to work with these students and help them achieve their academic goals.

PROJECTS

December 2022 – January 2023

Router with a cache

Ada programming language

I recently completed a project where I designed and implemented a router with a cache using Ada. The project required a strong understanding of network protocols, data structures, and object-oriented programming concepts. Despite facing challenges, I was able to overcome them and deliver a functional router with improved performance compared to a traditional router without a cache.

December 2022 – January 2023

A modem according to the V21 recommendation of the ITU

Matlab

I recently completed a project where I implemented a modem using MATLAB, according to the V21 recommendation of the ITU. The modem transmits and receives binary data streams over a frequency-modulated signal. The main challenge was constructing the frequency-shift keying modulated signal, which involved generating a digital signal, scaling the temporal and frequency axes, and implementing filters to demodulate the signal. I also implemented a FSK demodulator that handles synchronization errors. This project required a strong understanding of digital signal processing, filter design, and the use of MATLAB. I gained valuable skills and knowledge that I believe will be useful for future telecommunications endeavors.

December 2020 – July 2022

The mathematical modeling of cancer tumor growth

Over the course of the past two years, I have focused my efforts on a project centered around the mathematical modeling of cancer. Through this project, I have gained a deep understanding of the complex mechanisms underlying cancer growth and progression, as well as the role that mathematics and computational tools can play in predicting and analyzing these processes. I am pleased to have received positive feedback on this project during the entrance exams for top engineering schools in France, and I believe that the skills and knowledge I have gained through this work will be valuable in my future studies and career.

LANGUAGES

Arabic

English

French

German

SKILLS

Python

Matlab

Mathematical Skills

Microsoft Word

C

Ada

Editing

Microsoft PowerPoint

INTERESTS

In my free time, I enjoy staying active and participating in a variety of sports and physical activities. As an expert football player and skillful swimmer, I have developed a strong foundation in these sports, and I also enjoy playing basketball, volleyball, and engaging in body building. In addition to physical activities, I also have a passion for music and enjoy creating and performing music in my spare time. I also enjoy more leisurely pursuits such as playing chess and spending time with friends. These interests and hobbies not only help me to stay active and engaged, but also allow me to develop new skills and pursue my passions.