# Jamal Boussouf

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#### Projects

# Overcoming Speech Recognition Challenges with GAN based Solutions

Nov 2022 – fev 2023 FPN, MOROCCO

Nador University

• Application of deep learning techniques to enhance speech recognition in different environments, including noisy conditions

- conditions.

   Convolutional Neural Network (CNN) model achieved high accuracy in clean audio but struggled with increased
- Attempted use of a simple autoencoder for noise removal led to a decline in classification performance, emphasizing the need for advanced denoising techniques.
- For more information: github/Overcoming-Speech-Recognition-Challenges-with-GAN-based-Solutions

## Elliptic Curve Cryptography

June 202 2 – juil 2022

Nador University

FPN, MOROCCO

- Accelerating Elliptic Curve Algorithms: Testing Techniques for Enhanced Speed in ECDH and ECDSA
- Exploring Elliptic Curve Cryptography: PARI/GP Implementation for ECDH and ECDSA in Python
- Testing of several algorithms such as NAF, Window-NAF and other algorithms to verify the signing and verification speed of ECDSA.
- For more information: github/Elliptic-Curve-Cryptography

#### Secure P2P chat application using java

Feb 202 2 – juil 2022

FPN, MOROCCO

Nador University

- Secure P2P Chat Application: Proposal for a secure chat application implemented in Java.
- System architecture resembles a complete and fully connected graph.
- Communication between nodes involves secure packet types.
- Secure P2P chat application in Java with decentralized network architecture, AES key exchange using RSA algorithm, and secure communication channels without a server.
- For more information: github/Confidential-secure-and-optimal-communication-P2P

#### **EDUCATION**

## Master in Data Science and Intelligent System

Nador, MOROCCO

 ${\it Multidisciplinary Faculty of Mohammed Prime\ Nador}$ 

Aug. 2022 - current students

First year:

- \* Introduction to AI and Data Science
- \* Data Analysis
- \* Data bases such as SQL (Oracle) NoSQL (aws simpleDB, MongoDB, firebase)
- \* Web technology with Java EE and Flask
- \* Data security

#### Bachelor in Computer Science, Network and web system administration

Nador, MOROCCO

Multidisciplinary Faculty of Mohammed Prime Nador

Aug. 2018 - May 2022

Third year:

- \* Digital signature using elliptic curves
- \* Software Development (Java)
- \* System Development
- \* Web Development (PHP, XML)
- \* Networking (packet tracer, GNS3)

Second year:

- \* Introduction to C programming
- \* Data Structure with C
- \* OS (linux)
- \* probabelity and statistic

#### First year:

- \* Powerful mathematics background
- \* Physics
- \* Algorithms

## Degree in Physical Sciences and Chemistry

Nador, MOROCCO Aug. 2015 - May 2018

 $Farkhana\ College$ 

Third year:

- \* Basis of Mathematics
- \* Basis of Physics and Chemistry

## VOLUNTEERING

Treasurer of the club

I2A club

Organizer of hackathon in AI

I2A club

FPN, Nador, MOROCCO

April. 2023 – Current
FPN, Nador, MOROCCO

Jun~2023

#### TECHNICAL SKILLS

Languages: Java, Python, C, SQL (Oracle), NoSQL(MongoDB, Firebase), JavaScript, HTML/CSS

Frameworks: Spring boot, Flask

Developer Tools: Git, AWS cli, VS Code, Visual Studio, PyCharm, IntelliJ

Libraries: pandas, NumPy, Matplotlib, cypari