Sidi Mohammed BOUGHALEM
Pure Mathematics graduate

28 - Pure mathematics graduate, with an unconditional passion for mathematics. Through my studies i gained a rich background in Algebra, Geometry and Number theory. I am overall interested in Arithmetic Geometry and Number theory.

EDUCATION

2020

MASTER THESIS : ON THE GENERATING FUNCTION AND THE ALGEBRAICITY OF EISENSTEIN-KRONECKER NUMBERS

Master thesis on the special values of Hecke L-functions related to imaginary quadratic fields. Under the supervision of Pr. Dr. Guido Kings. Universität Regensburg, Regensburg - Germany.

2017 - NOW

MASTER DEGREE IN MATHEMATICS: FOCUS ON ARITHMETIC GEOMETRY AND NUMBER THEORY

Universität Regensburg, Regensburg - Germany.

2015 - 2016

ERASMUS EXCHANGE YEAR : INTERNATIONAL MASTER OF MATHEMATICS

University of Würzburg, Würzburg - Germany.

2011 - 2014

BACHELOR DEGREE IN PURE AND APPLIED MATHEMATICS

University of Orléans, Collegium science et technique, Orléans - France.

LANGUAGES SKILLS

FRENCH
Mother tongue, proficiency in spoken and written.

ENGLISH
2nd language, fluency in spoken and written - TOEFL (Computer based-test)

GERMAN
Confidence in spoken and written - C1 level score : 1,7

SPANISH
Good communications skills, spoken and written - Level B1.

ITALIAN
Good communications skills, spoken.

Ludwig-Thoma-Str. 17
Zimmer N 340
93051, Regensburg
Germany.

+49 179 4202775

shinokiz@gmail.com

linkedin.com/in/sidi---/

https://sithlord-dev.github.io/

SKILLS

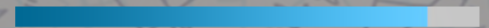### PROFESSIONAL SKILLS
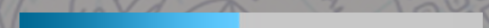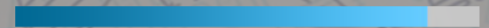
Python

C (programming language)

Mathlab/Scilab
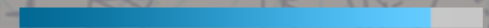
GIT

Jupyter notebook
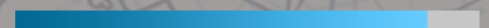
Magma/Sage

Microsoft Office Suit

PERSONAL SKILLS

Communication skills

Problem solving

Rational thinking

◈ IT EXPERIENCE

DATA ANALYSIS

I am very familiar and have experience in the main data analysis workflow: data inspection, data cleaning/preprocesing, data transforming, data minning and data modelling.

Here are some projects using EDA or CDA that i have done/worked on:

• Sea level prediction using linear regression:

Analysis of a dataset of the global average sea level change since 1880 in order to predict the sea level change through the year 2050.

• Forum's Pageview time-series analysis:

Analysis and visualization of time series data using a line chart, bar chart, and box plots to understand the patterns in visits and identify yearly and monthly growth in FreeCodeCamp's forum

MACHINE LEARNING

I am very familiar and have experience in the main machine learning workflow: I worked with TensorFlow, Keras, as well as with PyTorch and I am familiar with Regression algorithms (Linear regression, Logistic regression, ...), Computer vision, Natrual Language Processing and Deep learning (CNN, RNN and LSTM).

Here are some recent projects that i have done/worked on:

• COVID19 fakenews detection:

CODALAB's competition "COVID19 Fake News Detection in English". Implemented a machine learning algorithm that classifies tweets/news into real or fake. Reached an accuracy of 94% and a recall of 93,5% using LogisticRegression.

• Dog bread classification using convolutional neural networks:

Kaggle's Computer vision competition, on dog bred classification. Implemented a Deep learning algorithm (using feature extractions) that will help identify up to 120 different breeds of dogs with an accuracy of 97%. I also designed a Web App using Flask that you can find on my repository.

• Book recommendation engine using Collaborative Filtering:

I created and implemnted a little book recommendation algorithm using the K-NearestNeighbors algorithm, to produce book recommendations that are similar (based on user's ratings) to a given book.
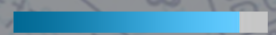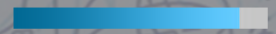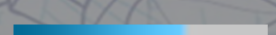
PROGRAMMING

I learned some programming languages including C, PHP, and a little bit of JAVA, but my favourite language and the one i am better at is Python.

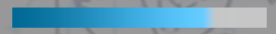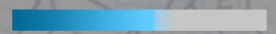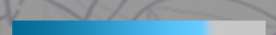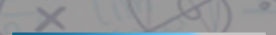Here are some projects I have made/worked on:

• Implementing Conway's "Game of life" on Python:

My Python class's final project. I implemented a cellular automaton whose evolution is determined by its initial state only, is Turing complete and respects some specific rules developped by my favourite mathematician John Conway,
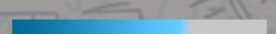
Data Analysis libraries:

pandas

NumPy

matplotlib

seaborn

SciPy

IP[y]: IPython Interactive Computing

Machine learning libraries:

scikit learn

TensorFlow

Keras

PyTorch

NLTK

dmlc XGBoost

Frontend libraries & frameworks

Flask

Google Cloud Platform

HEROKU