

MALHOU Mohamed

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EDUCATION

Ecole Polytechnique, France

August 2018 - Ongoing

Ingénieur Polytechnicien Program

Coursework includes: Statistics, Deep Learning in Computer Vision,

Algorithms for data analysis in C++, Data Analysis and Unsupervised Learning

Monte-Carlo Methods and Stochastic Processes, Operations Research

Optimisation and Control.

Lycée d'Excellence de Benguerir (LYDEX), Morocco.

September 2016 - June 2018

Preparatory Program.

A two-year post secondary program in advanced mathematics and physics.

WORKING EXPERIENCE

Machine Learning Engineer.

September 2020 - Ongoing

AUK Technology, London

Part-timer

Software Developer and Machine Learning Intern.

June 2020 - September 2020

AUK Technology, London

Developed APIs and brokerage software in .NET Core framework for finance business.

Created an NLU powered Bot using MVC, PubSub and State patterns in a domain driven design.

Familiar with Agile Scrum methodology and Git version control system.

XProjets & Lidl, Paris

January 2020 - march 2020

Worked in the school's junior Entreprise to build a computer vision model for Lidl.

Tracking the products in the shelves to better manage supermarkets using image segmentation models.

Teacher and specialized educator.

October 2018 - April 2019

Apprentis d'Auteuil Foundation, Thiais.

Math teacher, robotics workshop supervisor and specialized instructor for 50 underprivileged students with special needs. Helped two students on professional project reorientation.

PROJECTS

AirBus Ship Detection Challenge - Kaggle.

April 2020

Developed a U-Net model with ResNet blocks in PyTorch to detect ships in satellite images.

Knapsack Problem: User scheduling over multiple channels *December 2019 - February 2020*

Explored different approaches of solving integer (and non integer) linear programs from greedy algorithms to dynamic programming and stochastic approaches. Project code and report on Github.

Self-tallying e-voting protocol implementation.

September 2019 - April 2020

Collaborated with a group of PhD students of Edinburgh University to implement a decentralized protocol of electronic voting on Ethereum.

We implemented some cryptography primitives such as Zero knowledge signatures.

Detection of disaster areas on satellite images Hackathon.

September 28th 2019

Worked in team and won the hackathon.

Applied deep learning and trained the model which is a convolutional network with the xBD dataSet.

TECHNICAL STRENGTHS

Programming	CSharp, Python, C++, Java, .NET Core, Entity Framework Core, Computer Vision, Natural Language Understanding, Domain-Driven-Design
Languages	English (<i>full proficiency</i>), Arabic (<i>native</i>), French (<i>native</i>), German (<i>B1</i>).

OUTSIDE ACTIVITIES.

Soccer (Member of Ecole Polytechnique soccer team).

Hiking and geocaching.