

Ismail AKROUT

Software engineer & Machine Learning Enthusiast

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EDUCATION

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|----------------|--|
| 2018 – Present | MITx MIT STATISTICS AND DATA SCIENCE MICROMASTERS |
| 2014 – 2019 | National Institute of Applied Science and Technology (INSAT) BACHLOR OF ENGINEERING <i>Specialization: Data science</i> GRADUATED WITH HIGH HONORS |
| 2010 – 2014 | Lycée Pilote de Bizerte HIGH-SCHOOL DIPLOMA GRADUATED WITH HIGH HONORS |

IT SKILLS

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|----------------------------|---|
| Programming | C++, PYTHON, JAVA |
| Softwares and tools | <i>Big Data:</i> Hadoop, Spark <i>SCM:</i> Git, SVN <i>Unix System Administration</i> |

COMMUNICATION SKILLS & HOBBIES

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| Languages | <i>Arabic</i> : Native <i>English</i> : Fluent <i>French</i> : Fluent |
| Associations | Securinets Technical Manager and CTF challenges Manager, Co-lab INSAT advisor |
| Hobbies | Violin and piano practice, e-sports |

CERTIFICATIONS & DISTINCTION

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| September 2019 | MIT: Machine Learning with Python From Linear Models to Deep Learning <i>Edx Certificate</i> |
| July 2019 | RLDM 2019 Travel Grant Award <i>800€ Scholarship</i> |
| June 2019 | MIT: Fundamentals of Statistics <i>Edx Certificate</i> |
| December 2018 | MIT: Probability - The Science of Uncertainty and Data <i>Edx Certificate</i> |
| Since December 2017 | Deep learning Specialization <i>5 Coursera Certificates</i> |

PROFESSIONAL EXPERIENCES

SEPTEMBER 2019 – DECEMBER 2019

Teaching Assistant | *INSAT, Tunisia*

- Teaching the deep learning and reinforcement learning course.
- Support the design of the programming assignments.

FEBRUARY 2019 – AUGUST 2019

Graduation Internship | *Télécom Paris-Tech, France*

- Classification of job offers using unsupervised learning based on RNN autoencoders data representation.
- Creating an infrastructure to clean the data and store it, asynchronously.
- Approximate the data distributions using multivariate Gaussian mixture.

JUNE 2018 – SEPTEMBER 2018

RL Research Intern | *Ankor.ai, Canada*

- Implementing Reinforcement learning algorithms to solve gaming automatization problems.
- Python programming using Deeplearning frameworks: Keras, TensorFlow, OpenAI Atari.

PUBLICATIONS

Hacking Google reCAPTCHA v3 using Reinforcement Learning | *RLDM 2019*

Ismail Akrouit, Amal Feriani, Mohamed Akrouit.* [\[Paper\]](#)

- Trained RL agent to bypass reCaptcha v3 bot test
- Developed an environment to interact with reCAPTCHA system

ACADEMIC PROJECTS

OCTOBER 2018 – NOVEMBER 2018

Finance class: **Cap-Fix log analyser**
INSAT, Tunis, Tunisia

- Extracting **Cap-Fix** Log from Trading center log files, using **BASH** scripts to minimise parsing time.
- Visualising log data using **ELK stack**: Elasticsearch, Kibana, Logstash.

FEBRUARY 2018 – MAY 2018

Machine Learning and data mining class:
Traffic sign classification project
INSAT, Tunis, Tunisia

- Data augmentation from German Traffic Sign Classification.
- Traffic Sign classification using LeNet5, Alexnet, ResNet and Inception v3.