

# MIOULET LUC

## Cloud Machine Learning Engineer

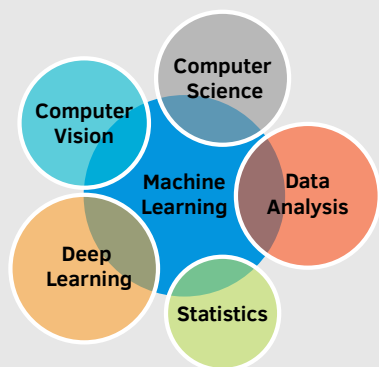
+33 6 61 01 73 59

l.mioulet@gmail.com

/in/luc-mioulet-45b0a357

## Skills

### Overview



### Programming

## Knowledge

**Neural networks** - VGG, ResNet, WGAN, BLSTM-CTC

**Machine learning** - Random Forests, XGBoost.

**Recommender systems** - ALS, KNN-items.

**Languages** - Python, C++.

**Cloud services** - AWS Glue, Athena, S3, EMR, EC2, DynamoDB, Sagemaker.

**Others** - Docker, terraform.

## Languages

**French** - Mother tongue.

**English** - Mother tongue.

**Italian** - Level B2.

## Experience

Jul 2018 -  
Now

### Senior Machine Learning Engineer

Helixa.ai, Italy

- **Mission:** Bring AI to market research.
- Built a recommender systems (ALS) for inferring latent interests of users.
- Applied computer vision knowledge (thresholding techniques) to discover extremely active social network users.
- Designed and maintains a data processing pipeline for weekly data production used by customers.
- **Tools:** pandas, sklearn, scipy, implicit, pyTorch, pySpark, EMR, DynamoDB, AWS Batch, Docker.

Sep 2016 -  
Jun 2018

### Machine Learning Research Engineer

IMRA Europe SAS, France

- **Mission:** Investigate niche research areas for the automotive industry.
- Developed a pedestrian recognition system using 3D LIDAR data. Benchmarked on several public datasets (STC, KITTI). Published results in IVS 2017.
- Obtained a patent on **Method for Predicting Multiple Futures**
- **Tools:** C++, Caffe, pyTorch, tensorflow, OpenCV, PCL, pandas, Gitlab.

Aug 2015 -  
Aug 2016

### Software developer

Astek SE, France

- **Mission:** Contractor For Amadeus R&D Centre in Nice, France.
- Worked in a team of 7 persons in charge of transforming an old monolithic system into a distributed system.
- Developed, tested and deployed several terminal commands according to schedule for a production system.
- Provided scripts to migrate historical log files to a database oriented model.
- **Tools:** C++, Boost, SQL, Python, git.

Feb 2015 -  
Aug 2015

### Teaching Assistant

University of Rouen, France

- **Mission:** Instruct L1 and L2 students.
- Taught tutorial and practical classes on 8086 assembly for under graduates
- Taught Machine learning practical classes for postgraduates.

## Research

Feb 2012 -

### PhD : handwriting recognition using recurrent neural networks

University of Rouen, France

Aug 2015

- Compared multiple fusion strategies for BLSTM-CTC networks.
- Built a system for keyword detection under-uncertainty in handwritten documents.
- Built a system for automatic language identification in handwritten documents.
- **Tools:** Python, C++, rnnlib, OpenCV, CLD2.

Aug 2009

### Internship : handwriting grapheme recognition using denoising auto-encoders

University of Rouen, France

- Denoising auto-encoders for handwriting recognition
- **Tools:** C++, Torch 5.

## Patent

**Mioulet, L.,** Abad, F. , Tsishikou, D. and Bendahan, R. . Method for Predicting Multiple Futures. Patent No./ 18306623.2 – 1209.

## Publications

**Mioulet, L.,** Tsishikou, D., Bendahan, R. and Abad, F. . Efficient Combination of Lidar Intensity and 3D Information by DNN for Pedestrian Recognition with High and Low Density 3D Sensor. In *International Vehicle Symposium*, 2017.

**Mioulet, L.,** Garain, U., Chatelain, C., Barlas, P. and Paquet, T. . Language Identification from Handwritten Documents. In *International Conference on Document Analysis and Recognition*, 2015.

Garain, U., **Mioulet, L.,** Chatelain, C. and Paquet, T. . Unconstrained Bengali Handwriting Recognition with Recurrent Models. In *International Conference on Document Analysis and Recognition*, 2015.

Bideault, G., **Mioulet, L.,** Chatelain, C. and Paquet, T. . Benchmarking discriminative approaches for word spotting in handwritten documents. In *International Conference on Document Analysis and Recognition*, 2015.

**Mioulet, L.,** Bideault, G., Chatelain, C. and Paquet, T. . BLSTM-CTC Combination Strategies for Off-line Handwriting Recognition. In *International Conference on Pattern Recognition Applications and Methods*, 2015.

Bideault, G., **Mioulet, L.,** Chatelain, C. and Paquet, T. . A Hybrid BLSTM-HMM for spotting Regular Expressions. In *International Conference on Pattern Recognition Applications and Methods*, 2015.

**Mioulet, L.,** Bideault, G., Chatelain, C., Paquet, T. and Brunessaux, S. . Exploring multiple feature combination strategies with a recurrent neural network architecture for off-line handwriting recognition. In *Document Recognition and Retrieval*, 2015.

**Mioulet, L.,** Breckon, T.P., Mouton, A., Liang, H. and . Morie, T. . Gabor Features for Real-Time Road Environment Classification. In *International Conference on Industrial Technology*, 2013.

## Education

2010 -	<b>MSc Computational Software and Techniques in Engineering</b>	University of Cranfield, United Kingdom
2011	Machine learning, image processing, signal processing (C++, C, OpenCV).	
2006 -	<b>Engineering Diploma</b>	
	<b>Information Systems Architecture</b>	INSA Rouen, France
2011	Machine learning, image processing, signal processing. Machine learning, statistics, software engineering (C++, C, Matlab, Java).	