

# REMI DUPONT

STUDENT IN MACHINE/DEEP LEARNING

FINAL MASTERS INTERNSHIP, FROM MARCH 2019

## PERSONNAL PROFILE:

As someone who is passionate about technology, especially machine/deep learning, I love mathematics, and software engineering, I am someone that is hard working, rigorous and I like to see things through. I enjoy working in a team setting. Having lived in five different countries and cultures for both work and education, I have gained personal skills that allow me to adapt to the situation and work well independently. I am fluent in French (native) and English.

## WORK EXPERIENCE

DEEP LEARNING RESEARCH ASSISTANT

BNP Paribas AI Lab, Germany | September 2018- feb 2019

- Implementing new neural network architectures for sales predictions, or NLP
- Working as a team to understand the theory behind deep neural networks
- Programming in an efficient way, conducting machine learning experiments

MACHINE LEARNING INTERN

IIHNordic, Copenhagen | Feb-August 2018

- Programming ML-models using Tensorflow, Scikit learn, Google Cloud ML to analyse, present and predict data.
- Data preprocessing: SQL, Apache beam, datalab, python (pandas)
- Reading research papers to implement various models

COMPUTER PROGRAMMER (FREELANCE)

Paris | August-October 2017

- Communication software for Newsletters: Amazon web service, MySQL, Java, Bash, HTML/CSS, PHP,...
- Tailoring to individual customer needs
- Work independently

PRIVATE TUTOR IN MATHEMATICS

Troyes | April-June 2017

- Communication and teaching skills
- Ability to understand people

TECHNICIAN ASSISTANT, IRELAND

Tools & plastics | August 2015

- Mechanical skills
- Adapting to a new environment

JOB IN AN ASSEMBLY LINE

Cargill, Orléans | July 2014

## COMPUTING SKILLS

Big Data programming:

Tensorflow/Keras /Pytorch  
Python (scikit, numpy, pandas,...)  
R  
Background in mathematics:  
probability, linear algebra, logic,...  
Database (SQL)

Other Programming skills:

Java  
C++ / C  
Android Studio

Web technology:

HTML/CSS  
PHP  
Computer security  
Mathematics and networks  
Signal processing  
Webmaster

Administration

Linux environment (bash)  
Amazon Web Service  
Google cloud-ml

Hardware:

Arduino / Raspberry pi

## LANGUAGE SKILLS

French (mother tongue)  
English (24 month abroad)  
Spanish (B1 European level)

## OWS PROJECTS

Github: <https://github.com/remidpnt>  
Fablab creation at UTT (IT part)  
build a quadcopter Eachine 250  
build a 3D printer  
raspberrypi own web-server  
International student contest: "24 hours to innovate"

France-Denmark, 1024 km on bicycle  
2 half-marathons, 10 km in 47 min  
Parkour

## IMPLEMENTING SEVERAL DEEP LEARNING ARCHITECTURES:

AWD\_LSTM  
CNN  
XGBoost with neural network  
Shallow neural network with Naive  
baies regularisation  
Gaussian process

## BLOGPOSTS

Blogpost and code on my github:

How to pretrain a state of the art NLP  
classifier for transfer learning  
[https://remidpnt.github.io/NLP\\_transfer.html](https://remidpnt.github.io/NLP_transfer.html)

Use a pretrain VGG network for style  
transfer  
[https://remidpnt.github.io/style\\_transfer.html](https://remidpnt.github.io/style_transfer.html)

## CONTACT

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## EDUCATION

SEMESTER OF STUDY IN DENMARK, NOTHERN EUROPE  
South Denmark University, Odense | fall 2017

Lectures about big data, parallel computing, Linux, sensors technology  
6 months in English  
Intercultural background with Erasmus students from all around Europe and Denmark

SEMESTER OF STUDY IN CHINA  
Shanghai University | spring 2016

Lecture in french, english, chinese about history, maths, electronic ,  
intercultural management.  
Huge improvement regarding my adaptation skills

UNIVERSITY OF TECHNOLOGY OF TROYES, ENGINEERING SCHOOL  
Troyes | Since September 2014

2 years in preparatory class, where I had a lot of lecture in theoretical  
mathematics, physics, chemistry, English, programming,... and then  
specialization in electrical and software engineering

## EXTERNAL EDUCATION

To improve in machine learning, I took some online courses for futher  
developement and specialisation:

FASTAI PRACTICAL DEEP LEARNING FOR CODERS / CUTTING EDGE DEEP LEARNING  
<https://www.fast.ai/> | Jeremy Howard

-A practical approach to deep learning state of the art techniques in 2018  
-Natural language processing, image recognition, style transfer, GANs, image  
segmentation  
-Currently implementing some of theses models on my deep-learning computer.

STANFORD CS224N: DEEP LEARNING FOR NATURAL LANGUAGE  
PROCESSING

<http://web.stanford.edu/class/cs224n/> | Richard Socher, Christopher Manning

17 lectures, 3 mathematics and code assignments, 1 final project  
Description:  
Introduction to cutting-edge research in deep learning applied to NLP. On the  
model side we will cover word vector representations, window-based neural  
networks, recurrent neural networks, long-short-term-memory models, recursive  
neural networks, convolutional neural networks as well as some recent models  
involving a memory components. Assignment on my github: [https://github.com/remidpnt/CS224n\\_DeepLearning\\_for\\_NLP](https://github.com/remidpnt/CS224n_DeepLearning_for_NLP)

PYTHON MACHINE LEARNING - SECOND EDITION  
PACKT | Sebastian Raschka , Vahid Mirjalili

A practical approach to key frameworks in data science, machine learning, and  
deep learning  
Using the most powerful Python libraries to implement machine learning and  
deep learning: Tensorflow-Tensorboard, scikit decision tree, random forest, KNN,  
LDA,, panda preprocessing, ....

REFERENCES AVAILABLE UPON REQUEST