# Timo Mulder

## Profile

Bilingual Senior Machine Learning and Natural Language Processing specialist with an MSc and BSc degree in Artificial Intelligence. Has expertise in a variety of IT topics. Worked in both the Netherlands and the UK.

#### Relevant Skills

Extensive Professional Experience:

**Programming Languages and Libraries:** • Python • PyTorch • Tensorflow • Flask/Sanic+Gunicorn • Elasticsearch • Docker • Redis • Linux • UNIX CLI • LATEX • Git • Serverless

#### Cloud computing:

Successfully deployed several professional projects to production: • AWS Lambda • AWS Dynamo DB • AWS Sagemaker • AWS ASG • AWS ECR • AWS ELB • Elasticsearch

Daily professional use: • AWS EC2 • AWS S3 • TeamCity (CI/CD server) • Serverless

Occasional use: • AWS Athena (SQL) • AWS Kinesis

Practical experience and theoretical understanding at MSc level:

Machine Learning: • Supervised and Unsupervised Machine Learning • Classification • Regularisation • PCA • Neural Networks • Convolutional Neural Networks • Recurrent Neural Networks • Natural Language Processing • Natural Language Understanding • Deep learning for learning linguistic representations • Reinforcement Learning • Statistical and Neural Machine Translation • Attention.

**Extreme Computing:** • Big Data problems • Sharding • Streaming • Query Processing • Distributed file systems • Fault tolerance • Replication • MapReduce/Hadoop.

**Human-Computer Interaction:** • Design Requirements • Usability Evaluations • Interviews • Questionnaires • Think Aloud studies • Focus Groups • Interface Design • Prototyping.

## Experience

- 11/2017 Sr. Machine Learning and Natural Language Processing scientist, Amplyfi, Cardiff.
- present I took responsibility for improving the core data extraction and classification pipeline. I converted the messy prototypes that clients respectfully declined into an appealing product, paid over a million dollar per subscription for, with hundreds of active users. I also worked on research projects involving multilingual topic extraction, relation extraction, named entity disambiguation, document cleaning, and user query interpretation.
- 09/2011 **IT Engineer and Teacher**, *Self-employed*, Amsterdam and Edinburgh.
- 11/2017 In households I installed new devices, performed maintenance on them or taught people how to use them. Devices mostly concerned computers, tablets and smartphones. I also built a website for a client: http://abvba.nl.
- 08/2015 CEO's Executive Assistant and Trainer, CodeCult BV, Amsterdam.
- 11/2015 I helped a small enterprise to expand their offer and grow. As a trainer I successfully taught three groups of 15 children aged between 10 and 12 how to program.
- 09/2014 Laptop Help Desk (Student-Assistant), University of Amsterdam, Amsterdam.
- 11/2015 I helped up to 30 students and teachers per day with university related problems they had with their devices. I have also thrice provided technical support for exams.
- 04/2013 Chair Marketing Committee, Vereniging Informatiewetenschappen Amsterdam, Amsterdam.
- 08/2014 Ensured the informatics study association and her activities were visible around the university. We produced approximately three posters per week, kept social media pages up-to-date, and ordered merchandise to hand out at events.
- 05/2013 **IT Engineer and Teacher**, *Studentaanhuis.nl*, Amsterdam.
- $03/2014 \quad \text{In approximately 70 households I taught individuals how to interact with devices on a basic and advanced level,} \\ performed maintenance of computers at software level, and installed hardware. I received 100% positive feedback.}$

### Education

- 2016 MSc Artificial Intelligence, University of Edinburgh,
- 2017 First-class distinction,

Specialisation: Machine Learning.

Thesis Title: "Identifying Social Media Users Across Platforms and Highlighting Privacy Concerns"

2011 - BSc Artificial Intelligence, University of Amsterdam,

2015 2:1 degree.

Thesis title: "Robot Learning of Social Path Planning Using a Simulator"

#### Other activities

10/2019 **Speaker**, *PyData Cardiff Meetup*, Cardiff, United Kingdom.

The organisers of this meetup asked me to give one of the two talks at their bimonthly meetup. Well over 100 people attended my talk about text mining, and several others followed the presentation via an online live stream.

08/2017 Author, University of Edinburgh, Edinburgh, United Kingdom.

My MSc thesis was among the most outstanding projects of my year and has therefore been published on the university's public dissertation archive.

11/2015 Author, Benelux Conference on Artificial Intelligence, Hasselt, Belgium.

An extended abstract of my <u>BSc thesis</u> was published in the proceedings of the conference. Also, I was invited to present my research at the conference in the form of a poster.

- 04/2013 **Member of the Activities Committee**, Vereniging Informatiewetenschappen Amsterdam, Amsterdam.
- 08/2015 Myself and eight other students came up with and organised approximately 25 events per semester for the Informatics study association.
- 04/2012 Member of the Marketing Committee, Vereniging Informatiewetenschappen Amsterdam, Amsterdam.
- 08/2015 Designed, printed, and distributed posters weekly; ordered merchandise quarterly; updated social media pages multi-weekly; designed and ordered T-shirts; discussed other marketing approaches fortnightly.
- 09/2012 Welcome Weekend Mentor, Vereniging Informatiewetenschappen Amsterdam, Amsterdam.
- 09/2014 For three years I mentored a group of seven students at the study association's welcome weekend to introduce new students to the association and make them feel comfortable in their new environment.
- 02/2013 **Guide for Prospective Students**, *University of Amsterdam*, Amsterdam.
- 10/2013 Over a period of eight months I brought eight secondary school students to some of my lectures, showed them around the faculty and its institutes, and answered their questions.
- 08/2012 **Introduction Week Mentor**, *Intreeweek*; *University of Amsterdam*, Amsterdam.
- 08/2013 For two years in a row I was a mentor for the introduction week. I showed a group of 15 new students around in Amsterdam from early in the morning until late in the night.

## Languages and Interests

Languages: Level:

**Dutch** Mother tongue

English Studied and worked in the UK

**German** 5 years in school, exam grade 6/10

**Spanish** 7 months travelling experience

French 3 years in school

Hobbies:

Acoustic guitar

**Travelling** 

Improving old computers

Cycling

Photography

### References

Available on request.