

# Timo Mulder

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## Profile

Bilingual MSc Artificial Intelligence graduate, specialised in Machine Learning and Natural Language Processing. Has expertise in a variety of IT topics. Worked in both The Netherlands and Scotland.

## Relevant Skills

*Practical experience and theoretical understanding at MSc level:*

**Machine Learning:** • Supervised and Unsupervised Machine Learning • Classification • Regularisation • PCA • Neural Networks • Convolutional Neural Networks • Long Short-Term Memory (LSTM) Networks • Recurrent Neural Networks • Natural Language Processing • Natural Language Understanding • Deep learning for learning linguistic representations • Reinforcement Learning • Statistical and Neural Machine Translation.

**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.

*Practical experience and theoretical understanding at BSc level:*

**Speech Recognition and Synthesis:** • Fourier transform • Dynamic Time Warping • Speech-to-text • Text-to-speech • Spectral Analysis.

**Psychology:** • Conditioning • Learning • Memory • Programming classical experiments in R.

**Math:** • Probability theory • Basic Statistics • Calculus • Stochastic Variability • Differentiation • Integration • Limits • Partial derivatives • Taylor series.

**Other:** • FOL logic • Predicate logic • Resolution (logic) • Prolog • Natural Language Programming • Linear Algebra • Java • Webprogramming • Databases • Datastructures • Shannon entropy • Simulation • Path Planning • Venn diagrams.

*Practical Experience:*

**Programming Languages:** • Python (*all MSc projects*) • Tensorflow (*two MSc projects*) • Chainer (*two MSc projects*) • Matlab (*most BSc projects*) • Linux (*main operating system*) • UNIX command-line interface (*multi-daily use*) • L<sup>A</sup>T<sub>E</sub>X (*main document editor for 6 years*) • Git (*several BSc and MSc projects*) • ROS (*BSc thesis*) • R (*several BSc experiments*) • Prolog (*BSc course and several BSc projects*) • Java (*BSc course on Java*).

## Education

2016 - **MSc Artificial Intelligence**, University of Edinburgh,  
2017 First-class degree,  
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"

## Experience

- 09/2011 - **IT Engineer and Teacher**, *Self-employed*, Amsterdam and Edinburgh.  
Present In households I install new devices, perform maintenance on them or teach people how to use them. Devices mostly concern computers, tablets and smartphones. I've also built a website for a client: <http://abvba.nl>.
- 08/2015 - **Trainer and CEO Executive Assistant**, *CodeCult BV*, Amsterdam.  
11/2015 I helped a small enterprise to expand their offer and grow. As a trainer I taught 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 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.

## Other activities

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

An extended abstract of my BSc thesis was published in the proceedings of the conference. Also, I was invited to present my research at the conference by means of a poster.

04/2013 - **Member of the Activities Committee**, *Vereniging Informatiewetenschappen Amsterdam*, Amsterdam.

08/2015 I and eight others 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** IELTS: 7.5/9, MSc in Scotland

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

**Spanish** 7 months travelling experience

**French** 3 years in secondary school

*Hobbies:*

**Acoustic guitar**

**Travelling**

**Improving old computers**

**Cycling**

**Photography**

## References

Available on request.