Kästingschäfer **Marius Marten**

NEUROSCIENCE RESEARCH · MACHINE LEARNING · MICROECONOMICS

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'I want to believe as many true things and as few false things as possible.'

Summary

I'm a 3rd year undergraduate student currently studying at Maastricht University in Psychology majoring in Neuroscience. Planning on graduating in the summer of 2019. I'm passionate about applying my knowledge of neuroscience in the field of cogntive science and machine learning and advancing my knowledge of complex systems. Looking for a Master in Cognitive Neuroscience and Artificial Intelligence.

Education

Maastricht University   *Maastricht, Netherlands*

B.S. IN PSYCHOLOGY AND NEUROSCIENCE - CURRENT AVERAGE GRADE 8,07 (6-10)   *September 2016 - August 2019*

- focusing on neurobiology and cognitive neuroscience
- statistical training focusing on t- tests, ANOVA, chi-square, ANCOVA, regression analysis, psychometrics, factor analysis (average grade 8,3)
- courses such as: methods of cognitive neuroscience, complex cognition, man and machine, neuroanatomy
- part of the MaRBLe excellence programme
- empirical bachelor thesis about artificial neural networks and scene recognition

Universitas Surabaya (UBAYA)   *Surabaya, Indonesia*

SEMESTER ABROAD - AVERAGE GRADE A (A-D)   *August 2018 - January 2019*

- among others a course on computer organization and architecture
- in parallel an online course on neural networks from Toronto university

Johann Wolfgang Goethe-University   *Frankfurt am Main, Germany*

B.S. IN ECONOMICS - AVERAGE GRADE 1.9 (1.0-6.0)   *June 2013 - September 2016*

- focusing on micro- and macroeconomics
- courses such as: business cycle theory and policy, labor economics, finance and inequality
- mathematical training focusing on linear algebra (including matrix calculation, linear systems of equations), sequences, series and differential calculus (including approximation methods, multivariate optimization)
- became familiar with frameworks such as mathlab, R and LaTeX
- advanced knowledge in game theory, agency theory, economic modeling
- bachelor thesis based on empirical research about cooperation norms within the Public Good Game

Theodor-Heuss-Schule (THS)   *Wetzlar, Germany*

HIGHER EDUCATION ENTRANCE QUALIFICATION - AVERAGE GRADE 1,7 (1.0-4.0)   *August 2010 - June 2013*

- focusing on english and economics
- final exams in physics including electrical and magnetic fields, mechanical and electromagnetic vibrations and waves, quantum and atomic physics (grade 14 (0-15); after seven years of physics overall)
- mathematical education focusing on analysis, linear algebra, analytical geometry and stochastic (final grade 13 (0-15))

Research Experience

Maastricht University, Faculty of Cogntive Neuroscience   *Maastricht, Netherlands*

RESEARCH ASSISTANT   *March 2019 - June 2019*

- working with the deep learning specialist Salil Bhat
- implementation of with by fourier analysis created gabor filters into capsule networks using Keras/Tensorflow (phyton)
- goal: reduce training time by using predefined filters on the lowest layer

EDLAB institute from Maastricht University *Maastricht, Netherlands*

RESEARCH SCIENTIST *August 2018 - Mai 2019*

- conducting my own experiment funded by the MaRBLe excellence program
- working on convolutional neural networks optimized for multi-modal scene recognition
- re-using a network pretrained on the places205 dataset (natural images) for clip art and sketches
- implemented in Keras with Tensorflow backend

Course 'Research practical' at Maastricht University *Maastricht, Netherlands*

RESEARCH SCIENTIST *April 2018 - June 2018*

- designing, planning, conducting and analyzing a research project
- measure the effects of flow on memory performance and heart rate variability
- supervised from Vincent van de Ven
- implemented in a Psychopy environment, programmed with python

Johannes Gutenberg-University *Mainz, Germany*

RESEARCH SCIENTIST *June 2014 - August 2014*

- own research project in cooperation with the Faculty of Business and Economics at Goethe-University
- project title 'the determinants of cooperation and behavior of children in public good games'
- planning, coordination, documentation and analysis of the results during quantiative experiment about cooperation

Skills

Programming	Python, LaTeX/Overleaf, basics in HTML
Frameworks	Octave/Mathlab, Excel, SPSS, Keras, Tensorflow, Psychopy, JASP
Languages	German, English, French

Other Activities

European School Frankfurt, PME *Frankfurt, Germany*

KINDERGARTEN TEACHER *June 2013 - August 2015*

- working with children the between 6-12 years
- strengthening communication and creativity skills, patience and flexibility
- plan, organize and lead activities

Rent-a-Frame, Enactus *Frankfurt, Germany*

CORE MEMBER *June 2013 - June 2015*

- social entrepreneurship project for unaccompanied young refugees from Syria
- participating and organizing art therapy
- applying for funding, presentation of the project, accounting

SeeU, GbR *Frankfurt, Germany*

FOUNDER *September 2013 - March 2014*

- start-up for proximity based communication establishing
- guiding during process of design and marketing plan

Hobbies

Travelling	I have recently been to Italy, Thailand, Indonesia, Myanmar, Vietnam
Reading	currently 'behave' by robert sapolsky
Cooking	lately I became vegetarian, so there is a lot to try out
Other interests	politics (especially divestment), philosophy (epistemology) and astrophysics