Michael Alexander Eijbersen, MSc (Mike)

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"If you ever think you've learned enough, you've lost yourself somewhere along the way"

Education

Sept. 2015–Aug. 2018 — **Master of Physics and Astronomy**, *Radboud University*, Nijmegen.
Specialization: Physics of molecules and Materials. *Graduation date: 31-08-2018*
Notable courses: Electrodynamics 1&2, Computational Physics, Numerical Recipies, Magnetic Resonance 2&3

Sept. 2011–Aug. 2015 — **Bachelor of Physics and Astronomy**, *Radboud University*, Nijmegen.
Graduated 31st of august 2015. Minor: Neurosciences.

Sept. 2008–July 2011 — **Bachelor of Economics**, *Radboud University*, Nijmegen.
Graduated specializing in Financial Economics.
Thesis: *On estimation of moments for stock returns*

Sept. 2007–Jan. 2008 — **Bachelor of Molecular Life Sciences**, *Radboud University*, Nijmegen.
Stopped due to lack of interest.

2002 – 2007 — **High School**, *Stedelijk Gymnasium Nijmegen*, Nijmegen.
Highest level (Gymnasium) of secondary education in the Netherlands.

Theses related to Physics and Astronomy

Title — *Acquisition strategies and MR Physics of imaging (hyperpolarized) molecules exploiting large chemical shift differences*

Supervisors — dr. Tom Scheenen & Prof. dr. Nicolo de groot

Description — Master' research internship at RadboudUMC. This project is about the physics behind hyperpolarization and MR in general, modeling of MR signals and calculating different MR components from data based on chemical shift using complex data and advanced mathematical techniques.

Title — *Echo combination on combined multi echo, multi band EPI*

Supervisors — Professor David Norris & Daniel Gomez, MSc

Description — Bachelor' research internship at the Donders Institute in Nijmegen. This project is about the physics behind MRI and contains a large portion of Image Processing and programming in Matlab.

Experience

Jobs and Internships

Jan. 2019 - present — **PhD-Student**, *UMC Utrecht*.
Working towards my PhD degree within the MT-STAT and MR-Safety implants projects.

Sept. - Dec. 2018 — **Junior Researcher**, *UMC Utrecht*.
I'm working on implementing the multi-coil reconstruction of the MR-STAT sequence in development there. Among other things, this includes heavy mathematics (Linear Algebra) to derive the correct expression for the multi-coil problem, and programming the relevant expressions in the reconstruction code in Julia.

Jul. 2017 - Aug. 2018 **Academic Intern**, *Radboud University Medical Centre Nijmegen*.
Part of my Master's Thesis. The research project is about developing a strategy for seperation of Hyperpolarized MR signals using complex numbered data to separate the signal from different molecules based on their resonance frequency. Elements within the internship are Data processing, Advanced MR Physics, MatLab programming, Pulse Programming and Dynamic Nuclear Polarization.
(See also Theses)

April 2016 - June 2018 **Project Officer**, *Radboud University Nijmegen: Faculty of Science*.
0.7 FTE until July 2017 Among my main responsabilities were in the development of IT solutions and automation of processes using either Microsoft solutions with Visial Basic or a combination of Website / PHP / MySQL-databases, as well as maintaining websites for the Faculty of Science using a Content Management System.

Jan. 2016 - Apr. 2016. **IT employee**, *ParkinsonNet*.
0.6 FTE Supporting the IT department with the ParkinsonNet and associated websites, Database Backoffice as well as the Selection procedure for new applicants.

Sept. - Dec. 2015 **IT employee**, *Operator Group Delft*.
0.8 FTE Multiple assignments for different companies including programming financial budget models for van der Velden and working as an IT employee at the Service Desk of RadboudUMC.

Sept. 2014 - Sept. 2015 **Academic Intern**, *Donders Centre for Cognitive Neuroscience*, MR Physics in Cognitive Neuroscience.
Part of my Bachelor's Thesis. I've conducted scientific research on multiple weighting schemes for echo combination using multi-echo EPI sequences resulting in my thesis for my physics BSc. The project involved a lot of advanced MatLab programming and statistical anaylsis, as well as understanding advanced MR-techniques including Parallel imaging and Multiband imaging. *(See also Theses)*

Sept. 2013 - Sept. 2015 **Teaching Assistant**, *Faculty of Science/Medical Sciences*, Radboud University Nijmegen.
Teaching mathematics and statistics courses to first year students of Physics and biology, a mathematics course for second year Articifial Intelligence students and practicals and high school physics refreshers to medical science students. The group sizes varied between 10 and 35 students.

Other Experience

2015 **Interview Committee**, *Faculty of Science*, Radboud University Nijmegen.
Member of the interview-committee which was asked to advise on the selection for the new 'student-assessor' for the faculty.

2014-2015 **Faculty Student Council**, *Faculty of Science*, Radboud University Nijmegen.
Vice-Chairman, My Portfolio of responsibilities are lobbying with the faculty board, Education and Examination regulations, supporting the rest of the council and writing memoranda.

2014 **Advisory Appointment Committee**, *Faculty of Science*, Radboud University Nijmegen.
Student member on the committee to interview and advise on the vacant position of the vice-dean concerning research affairs.

2013-2014 **Faculty Student Council**, *Faculty of Science*, Radboud University Nijmegen.
General council member, My Portfolio responsibilities were Computer Affairs, Internal Building Affairs, Education and Examination regulations and Contact for Study Associations.

Computer skills

Basic LabView, SQL
Intermediate C++, OpenOffice, Linux, Microsoft Windows, PHP, Julia
Advanced LaTeX, Microsoft Office, HTML, CMS Systems, MatLab

Languages

Dutch **Mothertongue**
English **Advanced** *Proficient in reading, writing speaking and listening*

About me

I'm a socially active person, who likes to talk and be busy all the time. Sunday is 'hockeyday' for me.

- Research
- Field Hockey
- Going Out with friends
- Organizing activities