

EDUCATION

UNIVERSITY OF AMSTERDAM

MSc IN THEORETICAL PHYSICS

Sep 2015 - Sep 2018 | Ams, NL

UNIVERSITY OF COPENHAGEN

ERASMUS PROGRAMME

Feb - Aug 2016 | Cph, DK

Student at the Niels Bohr Institute

UNIVERSITY OF AMSTERDAM

BSc IN PHYSICS AND ASTRONOMY

Sep 2012 - Sep 2015 | Ams, NL

Graduated with an Honours degree

Minor in computational science

HKU UNIVERSITY OF THE ARTS UTRECHT

PROPEDEUSE IN ART, TECHNOLOGY,
AND NEW MEDIA DESIGN

Sep 2011 - Sep 2012 | Utr, NL

SCHOOL OF MACHINES, MAK- ING, AND MAKE-BELIEVE

SUMMER SCHOOL: PHYSICAL
COMPUTING

Aug - Sep 2014 | Berlin, GER

Lead to work being exhibited in Berlin,
and on festivals in the NLs and Finland.

SKILLS

PROGRAMMING

Python • R • Matlab • Processing (Java)

• Arduino (C++) • Shell • Git •

Mathematica

LANGUAGES

Dutch (native) • English (fluent) •

German (conversational) • French (basic)

VISUAL

Photoshop • Grasshopper (Rhino) •

After Effects • \LaTeX

PUBLICATIONS

- Quantumuniverse.nl
Guest blog posts "Over vogels en
vuurvliegjes" (Feb 2019) and
"Solitonen in het zwembad" (Apr
2019)
- 2013-2014 | openprocessing.org
I have published open source code
(under username Abel Jnsm) that
has been run by >15,000 other
users, and forked by 15.

EXPERIENCE

UNIVERSITY OF EDINBURGH | PHD CANDIDATE

Sep 2018 - Present | Edb, UK

- I work at the intersection of physics, biology, and machine learning.
- We develop and analyse machine learning algorithms based on ideas from physics (Boltzmann machines).
- Using large genetic data sets, we train machines on our cluster, and use them to reason about the role of interactions and causality in genetics.
- Jointly supervised by **prof. Chris Ponting** at the Institute for Genetics and Molecular Medicine, and **prof. Luigi Del Debbio** at the Institute for Particle and Nuclear Physics.
- On the side, I co-organise the computational biology journal club, and participated in the *Digital Health Product Forge* hackathon 2019.

UNIVERSITY OF AMSTERDAM | STUDENT RESEARCHER

Core curriculum focused on quantum field theory/string theory, but I've tried to use my research projects to expand a bit into more unorthodox fields:

- Sep 2017 - Sep 2018 | Theoretical Physics dept.
Master's thesis on the mysterious appearance of affine Lie algebras in conformal field theories. Under supervision of **prof. Bernard Nienhuis**: *E_8 symmetry structures in the Ising model*. (A. Jansma, 2018)
- Feb 2015 - Sep 2015 | Theoretical Biophysics dept.
Bachelor's thesis under supervision of **prof. Greg Stephens**: Mathematical chaos in the crawling behaviour of *C. elegans*.
- Jun 2014 - Aug 2014 | Computational Science dept.
Undergraduate research under supervision of **dr. Jaap Kaandorp**: Dynamics of the gene-regulatory network of an *N. vectensis* embryo.

SCIPOST | INFORMATION OFFICER

Oct 2017 - Jul 2018 | Ams, NL

SciPost is a completely open and non-profit scientific publishing company. I helped expand the editorial board, profiling and contacting potential new editors. (Scipost.org)

ASML | TECHNOLOGY SCHOLAR

Sep 2015 - Sep 2017 | Eindhoven, NL

I was selected as one of 25 graduate students nationwide for a two-year professional development programme, focused on leadership in technology.

SPUI25 | MEMBER OF THE JUNIOR EDITORIAL BOARD

Jan 2017 - Sep 2017 | Ams, NL

I organised and presented monthly events to place academic ideas and research in a cultural context for a broad audience. (Spui25.nl)

MEDIAMATIC | DISTILLER

Sep 2016 - Jan 2017 | Ams, NL

I designed, built, and demonstrated a bespoke still to be used in artistic olfactory research. (Mediamatic.net)

BETABREAK | COMMITTEE MEMBER

Dec 2014 - Feb 2016 | Ams, NL

I organised and presented monthly debates at Amsterdam Science Park to stimulate cross-disciplinary discussion on science and society. (Betabreak.nl)

ANNA'S TUIN EN RUIGTE | BEEKEEPER

Apr 2017 - Apr 2018 | Ams, NL

I was the beekeeper at this public permaculture garden. (Annastuinenruigte.nl)