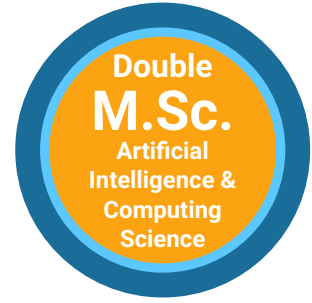


ARIANNE MEIJER

QUANTUM COMPUTING RESEARCHER

Currently, I am a researcher at University of Turku researching quantum software in preparation of starting a PhD in 2021. I have two master's degrees: one in Artificial Intelligence (with cum laude distinction), and one in Computer Science. I have obtained practical experience at many different companies and published two papers [4, 3].



obtained at
Radboud University Nijmegen

PERSONALIA



Arianne Meijer



Espoo, Finland



Dutch



ariannemeijer@gmail.com



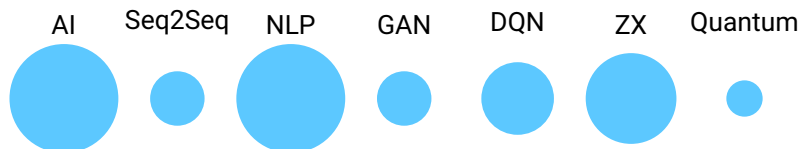
github.com/aerylia



linkedin.com/in/aerylia

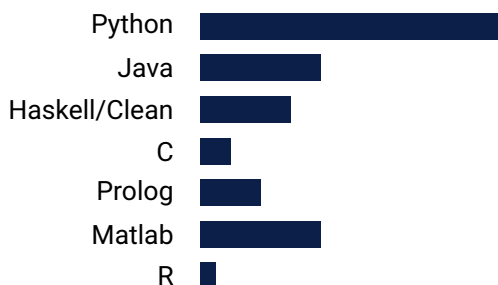
SKILLS AND TECHNOLOGIES

Relative expertise:



LANGUAGES

Relative expertise, in order of preference:



English (professional)

Dutch (native)

German (intermediate)

ACTIVITIES

I love to challenge myself both creatively and intellectually. I particularly enjoy combining established techniques in new ways. This can easily be seen in my crafts.

Or in the words of Spoonboy from the Matrix (1999):
Do not try and think outside the box, that's impossible.
Instead, only try to realize the truth... There is no box.



Baking

Puzzling

Warhammer AoS

Beat Saber

Knitting

EXPERIENCE

- 08-2020 until 12-2020 : **University of Turku, Project researcher, Turku (Finland)**
Researching quantum computing algorithms in particular VQE.
- 10-2019 until 04-2020 : **Cambridge Quantum Computing, Research Scientist, Cambridge (UK)**
Working on $t|ket\rangle$, i.e. researching quantum compiling techniques [3].
- 04-2019 until 08-2019 : **Radboud University, AI Master thesis, Nijmegen (NL)**
*Investigated the use of deep reinforcement learning for compiling quantum circuits [2].
Grade: 9/10 Supervisors: Aleks Kissinger (RU), Johan Kwisthout (RU)*
- 01-2019 until 03-2019 : **Radboud University, Teaching assistant Quantum Computing, Nijmegen (NL)**
Researched a compiling technique for quantum computers and wrote an paper about it [4].
- 01-2019 until 06-2019 : **Radboud University, Teaching assistant, Nijmegen (NL)**
*Helping students with exercises and grading them for various courses:
Combinatorics, Calculus & Probability Theory, and Representation & Interaction (Prolog).*
- 06-2018 until 11-2018 : **Machine2Learn, Graduation Internship Computing Science, Amsterdam (NL)**
*Researched natural language generation in the form of a chatbot and
language style transfer [1].
Supervisors: Tom Heskes (RU), Wouter Oosterheert (Machine2Learn)*
- 09-2017 until 02-2018 : **SIMON, Internship Artificial Intelligence, Eindhoven (NL)**
*Created an automatic invoice processor. Grade: 8.5/10
Supervisors: George Kachargis (RU), Martha Larson (RU), Erik van Breusegem (SIMON)*
- 08-2016 until 02-2017 : **Anchormen, Junior Data Scientist, Amsterdam (NL)**
Worked on several Data Science and AI projects.
- 03-2016 until 08-2016 : **RadboudUMC, Graduation Internship Artificial Intelligence, Nijmegen (NL)**
*Used kinship verification for syndrome diagnosis.
Supervisors: Marco Wiering (RuG), Jayne Hehir-Kwa (RadboudUMC),
Hamdi Dibeklioglu (TU Delft)*
- 05-2015 until 08-2015 : **Atos, Graduation Internship Computer Science, Groningen (NL)**
*Used text mining for predictive maintenance on Atos' computer network.
Supervisors: Michael Biehl (RuG), Marco Aiello (RuG), Mark Niemeijer (Atos)*
- 09-2014 until 11-2014 : **Zernike College, Internship Computer Science Teacher, Haren (NL)**
Taught computer science classes in high school (1/2 VWO and 4 havo/VWO).

EDUCATION

- 09-2016 until 08-2019 : **Master Artificial Intelligence, Radboud University, Nijmegen (NL)**
Judicium: Cum Laude (i.e. graduated with distinction)
- 11-2015 until 06-2019 : **Master Computing Science, Radboud University, Nijmegen (NL)**
- 09-2013 until 01-2019 : **Bachelor Artificial Intelligence, University of Groningen, Groningen (NL)**
- 09-2011 until 10-2015 : **Bachelor Computer Science, University of Groningen, Groningen (NL)**

PUBLICATIONS

- [1] Arianne Meijer-van de Griend. *Constrained quantum CNOT circuit re-synthesis using deep reinforcement learning*. UNPUBLISHED, Master thesis Artificial Intelligence. 2019. ResearchGate: RG.2.2.11886.77125.
- [2] Arianne Meijer-van de Griend. *Natural language generation for commercial applications*. UNPUBLISHED, Master thesis Computing Science. 2018. ResearchGate: RG.2.2.21953.10087.
- [3] Arianne Meijer-van de Griend and Ross Duncan. "Architecture-aware synthesis of phase polynomials for NISQ devices". In: *arXiv preprint arXiv:2004.06052* (2020). Presented at QPL 2020, virtual.
- [4] Aleks Kissinger and Arianne Meijer-van de Griend. "CNOT circuit extraction for topologically-constrained quantum memories". In: *Quantum Information and Computation* 20.7&8 (2020), pp. 581–596.