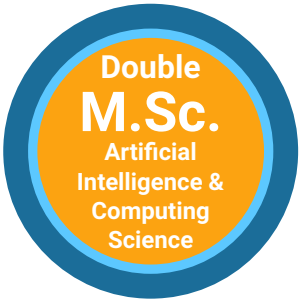
ARIANNE MEIJER

QUANTUM COMPUTING RESEARCHER

I have two master's degrees in Artificial Intelligence (with cum laude distinction) and 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

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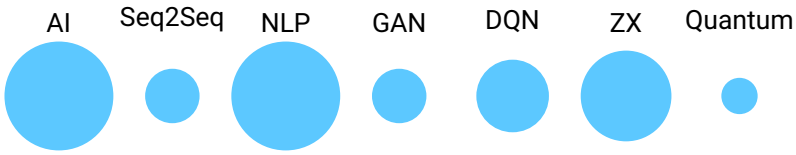
github.com/aerylia

linkedin.com/in/aerylia

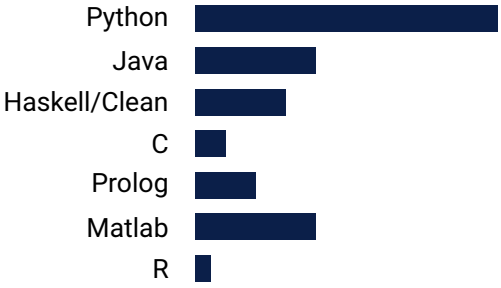
SKILLS AND TECHNOLOGIES

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
Beat Saber
Knitting
Warhammer painting

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>, 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.