

Matthijs Muis

*BSc Mathematics,
BSc Computer Science*

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Education

2022–2025 **BSc Mathematics, BSc Computer Science, Radboud University, Nijmegen,**
(expected) Current GPA: 9.5/10 (180 EC), expect to finish mandatory courses in 2024

Course name	Grade	Course name	Grade
Measure Theory ¹	-	Information Systems	90%
Topology ¹	-	Research Methods	90%
Optimization in		Languages & Automata	100%
Geometry & Physics ^{1,2}	-	Intro to Quantum Mechanics	95%
Quantum Mechanics 1 ¹	-	Operating System Concepts	90%
Complex Analysis ¹	-	Functional Programming	100%
Semantics and Correctness ¹	-	Parallel Computing	85%
Computability ¹	-	Hacking in C	95%
Software Engineering ¹	-	Processors	95%
Analysis 2	100%	Algorithms & Data Structures	95%
Advanced Probability	95%	Object Oriented Programming	95%
Logic ⁶	100%	Data Mining	95%
Discrete Mathematics	100%	Artificial Intelligence	100%
Rings and Fields	95%	Linear Algebra B ²	100%
Analysis 1	95%	Probability	95%
Ordinary Differential Equations	90%	Calculus B	100%
Combinatorial Group Theory	95%	Calculus A	100%
Dynamical Systems and Applications	100%	Linear Algebra A ²	100%
Statistics	95%	Introduction Mathematics	100%
Game Theory	90%	Imperative programming	100%
Operations Research ⁴	95%	Data Analysis	90%
Applied Linear Algebra ⁵	100%	Requirements Engineering	90%
Group Theory	100%	R& D Project	Pass
Advanced Mechanics	100%		

¹ Currently following.

² *Linear Algebra*, Friedberg, Insel & Spence, and tensor products.

³ *Calculus of Variations*, H. Kielhöfer

⁴ Linear programming.

⁵ Iterative methods for linear systems, gradient methods for continuous optimization.

⁶ *Sets, Models and Proofs*, I. Moerdijk & J. van Oosten.

Extracurricular

- 2023–2025 **Radboud Honours Programme Science**, Selection programme (25 students/cohort) for interdisciplinary research.
- 2023 **Cornell, Maryland, Max Planck Pre-doctoral Research Summer School**, Accommodated summer school hosted by Max Planck Institute for Software Science, Saarbrücken (selected, 90/500+ applications).
- 2020–2022 **University Mathematics courses while in high school**, 39 EC, Radboud University, Nijmegen
 - **Courses:** Linear Algebra A, Linear Algebra B, Probability Theory, Group Theory, Calculus A, Calculus B, Introduction Mathematics

Honors & Achievements

- 2023 **Dutch Royal Society of Sciences (KHMW) Young Talent Incentive Award**, *Best national propaedeutic study results in BSc. Computer Science 2022/2023, €500*
- 2022 **VWO PWS Award, OMO**, *1st place (/34 high schools), €1200,-*
 - **Project:** "Optimizing Black Jack strategies using Reinforcement Learning"
- 2021 **National Finalist Dutch Mathematical Olympiad**, (16th overall/ 9th in age class.)
- 2019 **W4 Kangaroo Mathematics Contest**, *Variant wizPROF, 130/150 points.*
- 2022 **Socrates Honours Award**, *For having obtained one of 10% highest GPAs among Dutch high school students.*

Projects

- **Breast cancer classification with Gaussian Naive Bayes and Neural Network (Python)**
Course: "Data Mining". [Code and report](#)
- **Regression analysis final project (R)**
Course: "Statistics". [Code and report](#)
- **Water pumping algorithm (Graph Reduction, Dynamic Programming, Branch-and-Bound) (C++)**
Course: "Algorithms and Datastructures". [Code and Report](#)
- **Dilworth partition algorithm (based on Hopcroft-Karp algorithm) (Python)**
Course: "Algorithms and Datastructures". [Code and Report](#)
- **Circuit design of RUNCPU2023 ISA (Digital)**
Course: "Processors". [Design and Report](#)
- **Personal web page (Markdown)**
[Go to website](#)
- **Shell implementation / Bounded buffer / Enhancing the caching behaviour of a program (C++)**
Course: "Operating Systems", three projects. [Code and Report](#)