

Koen Minartz

I am an enthusiastic and motivated computer scientist who enjoys acquiring and applying new knowledge and skills. I like to collaborate to solve problems and to challenge myself to achieve the best possible results.



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Education

MSc Computer Science and Engineering at Eindhoven University of Technology

2019-2021

grade: 9.4/10 (cum laude)

Thesis: 'Correlation Detective: Efficient Multivariate Correlation Discovery' (graded 10/10)

BSc Industrial Engineering at Eindhoven University of Technology

2016-2019

grade: 8.8/10 (cum laude)

Thesis: 'Capacity Requirements Forecasting at Rabobank Nederland' (graded 9/10)

Gymnasium at Grotius College Heerlen

2010-2016

grade: 8.9/10 (cum laude)

Work Experience

PhD Candidate at Eindhoven University of Technology

2021 - present

I am researching Machine Learning and Deep Generative Models with applications to Immuno-Engineering. I also teach in the Deep Learning course and give Machine Learning workshops targeted at scientists of other departments in the university.

Research Assistant at Erasmus University Rotterdam

2020-2021

I was hired by the Technology and Operations Management department to aid in the research project 'Improving Paratransit Efficiency in Hong Kong'.

Student Assistant at European Supply Chain Forum

2018-2021

The European Supply Chain Forum is a community of industry and academics initiated by Eindhoven University of Technology. My main responsibilities were the organization of community events, PR and defining new research projects with our partners. I also conducted an exploratory forecasting project for Rhenus Logistics to improve their capacity planning process.

Student Assistant at Eindhoven University of Technology

2017-2021

My main tasks were tutoring students and grading homework assignments and exams. I was involved in the courses Calculus, Financial Mathematics and Data Intensive Systems and Applications.

Mathematics Teacher at Stichting Studiebegeleiding Leiden

2017-2021

I was part of a team of mathematics teachers dedicated to optimally preparing 15-25 students for their high school mathematics exam in a weekend-long course. I also acted as a personal mentor for 5 students.

Graduation Intern at Rabobank Nederland

2019

I implemented statistical forecasting methods to improve capacity planning. The proposed methodology reduced the average forecast error with 50% compared to the prior forecasting method. My BSc thesis about the project was graded 9/10.

Teacher at AthenaStudies

2018-2019

I taught exam preparation courses to Industrial Engineering students. My courses were rated 8.6/10 on average by students.

Awards and Scholarships

Amandus H. Lundqvist Scholarship

Scholarship awarded to excellent students pursuing a MSc degree at Eindhoven University of Technology.

Best MSc Thesis of the Computer Science and Engineering Program

My master thesis was elected the best MSc thesis of the Computer Science and Engineering Program in 2021.

VLDB 2022 SPEND Travel Award

A grant for attending the VLDB conference and presenting the paper based on my MSc thesis.

References

Vlado Menkovski, Assistant Professor at Eindhoven University of Technology

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Dr. Menkovski is the supervisor of my PhD project.

Odysseas Papapetrou, Assistant Professor at Eindhoven University of Technology

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Dr. Papapetrou was the supervisor of my master thesis project.

Christopher Tang, Full Professor at University of California, Los Angeles

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I worked with professor Tang on a research project in vehicle routing problems.

Publications

1. Koen Minartz, Jens E. d'Hondt, and Odysseas Papapetrou. 2022. Multivariate Correlations Discovery in Static and Streaming Data. PVLDB, 15(6): 1266-1278.
2. Stepan Veretennikov, Koen Minartz, Vlado Menkovski, Burcu Gumuscu, and Jan de Boer. 2022. Simulation of Scientific Experiments with Generative Models. Advances in Intelligent Data Analysis XX.
3. Koen Minartz, Yoeri Poels, and Vlado Menkovski. 2022. Towards Learned Simulators for Cell Migration. NeurIPS 2022 AI for Science workshop. (To be submitted soon).