

MariusHerget

PhD Candidate, University of Amsterdam

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Links

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Education

- Since 02/21 **PhD Candidate**, *University of Amsterdam*, Amsterdam.
10/17-08/20 **Master of Science**, *Ludwig Maximilian University*, Munich, *Computer science*.
(120 ECTS, Grade: 1.91)
10/14-09/17 **Bachelor of Science**, *Baden-Wuerttemberg Cooperative State University*, Stuttgart,
Applied computer science.
(210 ECTS, Grade: 1.9)

PhD Research

My research is focused on efficient, effective, and scalable system-level design space exploration for complex, distributed cyber-physical systems.

- Group Parallel Computing Systems, Informatics Institute, University of Amsterdam
Project DSE2.0: Towards Optimal Design of Complex, Distributed Cyber-Physical Systems.
funded by NWO Domain Applied and Engineering Sciences & TNO-ESI
Partners Leiden University and ASML

Publications

- 2024 F. S. Saadatmand et al.
“Automated Derivation of Application Workload Models for Design Space Exploration of Industrial Distributed Cyber-Physical Systems”
In: *Proc. 7th IEEE International Conference on Industrial Cyber-Physical Systems (ICPS'24)*. St. Louis, USA: IEEE, May 2024
- 2022 M. Herget et al.
“Design Space Exploration for Distributed Cyber-Physical Systems: State-of-the-art, Challenges, and Directions”
In: *2022 25th Euromicro Conference on Digital System Design (DSD)*. Maspalomas, Spain: IEEE, Aug. 2022, pp. 632–640
- Master Thesis M. Herget
“Index Set Mappings for Multidimensional Views on PGAS Data Domains”
Munich, Germany: Ludwig Maximilian University of Munich, Aug. 2020
- Bachelor Thesis M. Herget
“Prediction of Financial Time Series with Artificial Neural Networks to Recognize Upcoming Trends”
Stuttgart, Germany: DHBW Stuttgart, Sept. 2017

Experience

- 10/18-01/21 **Developer Microsoft Cloud, Makonis, Munich.**
- Planning, developing, and deployment of divergent projects (client & in-house products)
 - Frontend (Angular, React) & backend development (C#, Asp.Net, Asp.Net Core, MVC)
 - Technical consultant for various clients
- 10/17-09/18 **Research assistant (PhoneStudy), LMU, Munich.**
- Development and improvement of the application architecture and infrastructure
 - Design/Implementation/Management of the backend service with a focus on security, safety, and reliability
- 2014–2017 **Cooperative Student, IBM, Stuttgart/Munich/Hamburg/Almaden (USA).**
- Various internships during my dual study programme (B.Sc.):
IBM Research, IBM Support Systems, IBM Cloud, Watson Team Germany, IBM IMT DACH
- 2014–2021 **Herget Design, Freelancer Film and Design.**

Awards

- 2024 **Best Paper Award**, “Automated Derivation of Application Workload Models for Design Space Exploration of Industrial Distributed Cyber-Physical Systems”, International Conference on Industrial Cyber-Physical Systems.

Supervision

- 2023 [REDACTED], *University of Amsterdam*,
M.Sc. Software Engineering & M.Sc. Computational Science.
Master Thesis: *Exploring Algorithmic Search and Pruning Strategies*
- 2023 **Herman Kelder**, *University of Amsterdam*,
M.Sc. Computer Science (joint degree with Vrije University Amsterdam).
Literature Review & Master Thesis: *Exploring Scalability of Simulation Environments*[†]

Lecturing


- 2023 **Model-based Design of Cyber-Physical Systems**, *University of Amsterdam*.
2022 **Model-based Design of Cyber-Physical Systems**, *University of Amsterdam*.
2021 **Embedded Software and Systems**, *University of Amsterdam*.

Summer Schools

- 2023 **Designing Cyber-Physical Systems**[†], *CPS Summer School*, Alghero, Sardinia.
2023 **International HPC Summer School**[†], *XSEDE*, Atlanta, USA.
2022 **Designing Cyber-Physical Systems**[†], *CPS Summer School*, Pula, Sardinia.
2022 **Advanced Computer Architecture and Compilation for High-performance Embedded Systems (ACACES)**[†], *HiPEAC*, Fiuggi, Italy.

Personal References

- [REDACTED]
[REDACTED] Senior Research Fellow & Professor
[REDACTED] || [REDACTED]
- [REDACTED]
[REDACTED] Full Professor & [REDACTED]
[REDACTED] || [REDACTED]



Founder & CSO

Certificates

2017 **Professional Scrum Master™ level I**, *scrum.org*².

Extracurricular Activities

Since 2022 **Emergency Response Officer (BHV)**, *University of Amsterdam*, Amsterdam, Netherlands.

2023–2024 **Informatics Institute PhD Council Member (Secretary & Treasurer)**, *University of Amsterdam*, Amsterdam, Netherlands.

Since 2022 **Treasurer**, *Student Association*, Munich, Germany.

2018–2020 **Secretary & Co-Chairman**, *Student Association*, Munich, Germany.

2015–2019 **Volunteer Medic at German Red Cross**, Munich, Germany.

2015–2017 **Ambassador of the startup Blocks**.

2010–2015 **Voluntary services of child and youth work in the leadership team of the local church**, Germany.

Due to privacy and security concerns, some parts of this public CV are redacted. If you would like to have an uncensored version, do not hesitate to contact me via email.