MATTHIJS JANSEN

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EDUCATION

Doctoral Candidate, Vrije Universiteit — 2020 - 2025 (Expected)
Supervised by dr. Animesh Trivedi and Prof. dr. ir. Alexandru Iosup
Working on resource management for cloud and edge computing

Master of Computer Science, University of Amsterdam and Vrije Universiteit Amsterdam — 2018 - 2020
Thesis: A Performance-Based Recommender System for Distributed DNN Training — Grade: 8.5/10

Bachelor of Computer Science, University of Amsterdam — 2015 - 2018
Thesis: Thermal Models for the Exploration of Embedded System Architectures — Grade: 8.0/10

PUBLICATIONS

Jansen et al., "The SPEC-RG Reference Architecture for the Compute Continuum" CCGRID 2023
Jansen et al., "Columbo: A Reasoning Framework for Kubernetes' Configuration Space" *under submission*
Jansen et al., "Continuum: Automate Infrastructure Deployment and Benchmarking in the Compute Continuum" FastContinuum 2023
Jansen et al., "DDLBench: Towards a Scalable Benchmarking Infrastructure for Distributed Deep Learning" DLS@SC 2020

WORK EXPERIENCE

Machine Learning Intern at the Dutch National Supercomputing Center SURF, Amsterdam — Jan 2020 - Jun 2020

- Analyzed distributed machine learning algorithms and systems (TensorFlow, PyTorch, Horovod, GPipe, PipeDream).
- Designed, implemented, and evaluated a recommender system for distributed machine learning, advising what distributed machine learning algorithm to use based on properties of machine learning datasets and systems.

SERVICE

Sub-reviewer for IEEE/ACM CCGRID 2023 — 2023
Reviewer for Amsterdam Data Science Thesis Awards 2022 — 2022
Sub-reviewer for TheWebConf 2022 and IEEE TPDS — 2022
Artifact Evaluation for EuroSys 2021 — 2021

EDUCATION

Teaching Assistant for Storage Systems (MSc) at Vrije Universiteit Amsterdam — 2021 - 2023
Teaching Assistant for Advanced Topics in Distributed Systems (MSc) at Vrije Universiteit Amsterdam — 2020 - 2023
Teaching Assistant for Compiler Constructions (BSc) at University of Amsterdam — 2019 - 2020
Teaching Assistant for Image Processing and Computer Vision (BSc) at University of Amsterdam — 2019
Teaching Assistant for Modern Databases (BSc) at University of Amsterdam — 2019
Teaching Assistant for Concurrent and Parallel Programming (BSc) at University of Amsterdam — 2019
Teaching Assistant for Information Retrieval (BSc) at Vrije Universiteit Amsterdam — 2018

SKILLS

Programming Languages	Fluent in Python and Bash, familiar with Go and C
Platforms	GNU/Linux, Kubernetes, KubeEdge, OpenWhisk, Spark
DevOps	QEMU, KVM, Docker, Ansible, Git, Terraform
Machine Learning	TensorFlow, PyTorch, Horovod, GPipe, PipeDream
Data Analysis	NumPy, SciPy, Pandas, Matplotlib