

Joeri R. Hermans

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Born: October 16, 1992
Nationality: Belgian

Experience

- 2018-2018 European Organization for Nuclear Research
External Project Associate, EP
Geneva, Switzerland
- 2017-now University of Liège
Doctoral Student & Teaching Assistant
Liège, Belgium
- 2016-2017 European Organization for Nuclear Research
Technical Student, IT-DB, Scalable Analytics
Geneva, Switzerland
- Summer 2015 Royal Meteorological Institute
Summer Intern, Data Management
Brussels, Belgium



Projects

- 2019-now Hypothesis • <https://github.com/montefiore-ai/hypothesis>
A Python toolkit for likelihood-free inference.
- 2018-now Refractor • <https://github.com/JoeriHermans/refractor>
Gravitational lensing simulations with PyTorch.
- 2016-now Distributed Keras • <https://github.com/JoeriHermans/dist-keras>
Distributed Deep Learning with Apache Spark & Keras.
- 2016-now Hadoop Profiler • <https://github.com/cerndb/Hadoop-Profiler>
Asynchronous stack profiler for distributed systems.

- 2016 HackZurich Entry - SafeCar • <https://github.com/JoeriHermans/hackzurich-2016-entry>
All nearby cars communicate with each other, the infrastructure (e.g., traffic lights), and emergency services to maximize traffic safety and minimize injury.
- 2016 Warpdrive • <https://github.com/JoeriHermans/warpdrive>
Shell utility to navigate quickly between directories.
- 2014-now Intelligent Automation System • <https://github.com/JoeriHermans/Intelligent-Automation-System>
Flexible and very performant (home) automation system.

Awards & Grants

- FRIA Scholarship National Fund for Scientific Research, Belgium
- Best DKE Master Thesis 2017 Maastricht University, The Netherlands
On Scalable Deep Learning and Parallelizing Gradient Descent

Education

- 2017-now Ph.D. in Computer Science, University of Liège 8.11/10 GPA (A grade)
- 2015-2017 M.Sc. in Artificial Intelligence, Maastricht University
- 2011-2014 B.Sc. in Computer Science with Physics minor, Hasselt University

Publications

- 2019 Likelihood-free Markov chain Monte Carlo with Approximate Likelihood-ratios
- 2018 Adversarial Variation Optimization, AISTATS 2019
- 2018 Gradient Energy Matching
- 2017 Accumulated Gradient Normalization, ACML 2017
- 2017 On Scalable Deep Learning and Parallelizing Gradient Descent, CDS
- 2016 Developing and optimizing applications for the Hadoop environment, CHEP

Skills & Expertise

Programming Languages
C/C++ • Python • Java • SQL • PHP • Bash

Skills
Machine Learning • Distributed Computing • Web Development

Languages

Full professional proficiency: English
 Limited proficiency: French, German
 Native proficiency: Dutch

Interests

Astronomy • Physics • Optimization Algorithms • Simulation-based inference • Machine Learning
• Neural Networks • Distributed Systems • Aviation • Photography