Rutger van Haasteren

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A prize-winning PhD in Astrophysics / data analysis
9 years of research experience + 6 years of experience in data science and ML

Skills

• Programming (C++, Python, OOP)	*software packages pulsar data analysis*
• Bayesian analysis	*pioneered Bayesian pulsar timing analysis*
• Monte Carlo / sampling methods	*designed custom Monte Carlo Samplers*
• Statistics and probability theory	*signal detection / (hypothesis-) tests*
• Machine/Deep learning	*designed and implemented ML methods*

Relevant Postdoc/Industry Experience

08/2022 to *present*	Group Leader	Albert Einstein Institute, Hannover, DE *Pulsar Timing Array science*
05/2016 to 08/2021	Senior Data Scientist	Microsoft Corporation, Redmond, USA *ML techniques for Petabyte-sized datasets*
09/2013 to 4/2016	Einstein fellow	NASA's JPL / Caltech *Novel analysis methods for pulsar timing*
09/2011 to 08/2013	Postdoctoral fellow	Albert Einstein Institute, Hannover, DE *Gravitational-wave detection with pulsars*
05/2011 to 08/2011	Research associate	Leiden Observatory, the Netherlands *Developed time-series analysis techniques*

Education

05/2007 to 04/2011	PhD Astrophysics	Leiden University, the Netherlands *Pioneered Bayesian pulsar data analysis*
09/2001 to 04/2007	MSc. Theoretical Physics	Leiden University, the Netherlands *Focus: relativity and quantum computing*

Prizes, awards, achievements

Einstein fellowship 2013	prestigious 3-year fellowship in Astrophysics (Selected 12 out of 187)
Hubble fellowship 2013 (declined)	prestigious 3-year fellowship in Astrophysics (Selected 18 out of 290)
GWIC thesis prize 2011	Gravitational Wave International Committee thesis prize 2011, for an outstanding original PhD thesis based on research in gravitational waves
Stefano Braccini prize 2011	honorable mention (2nd place) for a PhD thesis consisting of original techniques, laying out infrastructure for data analysis in pulsar timing

Additional information

- Extensive programming experience: made apps in BASIC/C++ since age 13
- Designed novel matrix decomposition algs & numerical integration schemes
- Passion for teaching