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LinkedIn
GitHub

HENRIK JESSEN MUNCH

PHD, CAND. SCIENT.

PROGRAMMING

EXPERT

- `Python` (pandas, scikit-learn, pytorch, matplotlib, numpy)
- `Git`
- `Linux` (Arch, Debian)
- `Mathematica`

INTERMEDIATE

- `Bash`
- `Julia`
- `Lua`

SKILLS

DATA SCIENCE

- Data analysis (regression, Bayesian inference, classification)
- Data visualization

MATHEMATICS

- Statistics
- Differential equations
- Linear algebra
- Symbolic logic

SOFT SKILLS

- Experienced teacher (uni. level)
- Organization of international collaborations

LANGUAGES

- Danish (native)
- English (fluent)
- Russian (intermediate)

CERTIFICATES

INFN MACHINE LEARNING HACKATHON

- Location: INFN Pisa Section

COMPUTER ALGEBRA AND PARTICLE PHYSICS

- Location: University of Hamburg

KAGGLE

- Introduction to Machine Learning
- Introduction to Deep Learning
- Intermediate Machine Learning

EDUCATION

PHD IN PARTICLE PHYSICS — *University of Padova*
Evaluation: Summa cum laude (October 2020 - December 2023)

MASTER'S IN PHYSICS — *University of Copenhagen*
Weighted average grade: 11.3/12 (September 2014 – January 2020)

WORK EXPERIENCE

VISITING SCIENTIST — *Institute for Advanced Study*
Princeton, USA (April 2023 – June 2023)

VISITING SCIENTIST — *Max Planck Insitute*
Leipzig, Germany (January 2023 – March 2023)

TEACHING ASSISTANT — *University of Padova*
Padova, Italy (January 2022 – August 2022)

RESEARCH FELLOWSHIP — *University of Hamburg*
Hamburg, Germany (Febuary 2020 – August 2020)

TEACHING ASSISTANT — *Niels Bohr Institute*
Copenhagen, Denmark (September 2016 – January 2020)

PROJECTS

DEVELOPER OF THE PROGRAM FEYNTROP

- Numerical Monte Carlo integration software
- https://github.com/michibo/feyntrop

MACHINE LEARNING MODEL FOR PARTICLE PHYSICS

- Machine learning classification model to detect certain particles in data from the Large Hadron Collider

SCIENTIFIC ARTICLES

- Published 7 peer reviewed papers
- PDFs available at https://inspirehep.net/authors/2000628

PUBLIC SPEAKER

- Given talks at 10+ international conferences
- Topics: Computational methods for particle physics

PHYSICS EXPERIMENTS USING SMARTPHONES

- Developed experiments and made video tutorials for bachelor students
- Used the `phyphox` smartphone app for data collection

ORGANIZER

- Amplitudes Lounge Seminar Series
- Amplitudes Conference 2021
- Geometry and Scattering Amplitudes Journal Club
- Philosophy Students' Colloquium
- Astronomy Students' Society