

Resume

Imke MAYER / 24 yo / German citizen

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Work experience and research projects

Since October 2018, PhD student in applied mathematics at the Center for Social and Mathematical Analyses (CAMS, EHESS) and at the Center for Applied Mathematics (CMAP, École Polytechnique). Topics: Causal inference, missing values, critical care management. Supervisors: Jean-Pierre Nadal and Julie Josse.

Summer 2018, Research Internship at the Center for Imaging Science, Johns Hopkins University. Analysis of several non-convex matrix factorization problems and development of efficient algorithms for finding globally optimal solutions. Supervising professor: René Vidal.

Summer 2017, Research Internship at Laboratoire de Statistique Théorique et Appliquée (LSTA, UPMC). Theoretical and numerical study of the false discovery rate in regression models. Supervising professors: Claire Boyer, Maxime Sangnier.

July 2016 – January 2017, Working Student at *foodora.* I worked on different data analysis projects and tasks from the teams of Global Logistics Operations and Business Intelligence.

Spring 2015, Machine Learning Project. Study of a multi-agent reinforcement learning case with implementation in *lua*. Supervising professor: Ludovic Denoyer.

Education

2017 to 2018, Second year master's degree in Mathematics, "MVA", at École Normale Supérieure Paris-Saclay, with distinction. Relevant classes: Convex Optimization, Probabilistic Graphical Models, Unsupervised Learning, Sub-Pixel Image Processing, High-dimensional statistics, Kernel Methods for ML, Inverse Problems in Functional Brain Imaging.

June 2017, Summer school: Structured Regularization for High-Dimensional Data Analysis at IHP.

2016 to 2017, First year master's degree in Mathematics at UPMC (Paris 6). Relevant classes: Statistics (mathematical theory and applications), Functional Analysis, Approximation of PDEs, Numerical probabilities and computational statistics, C++ for mathematicians.

July 2015, Summer school at Brown University, RI. Introduction to numerical solution of differential equations (daily classes and final project).

2013 to 2016, Double major under graduate degree in Mathematics and Computer Science at UPMC (Paris 6), with distinction. Relevant classes: Approximation of ODEs, Statistics, Cryptography, Scientific Computation, Algorithmics, Digital imaging.

2013 to 2018, AEFE Excellence Major honor scholarship recipient, (French equivalent of DAAD).

2011 to 2013, French Baccalauréat, Scientific stream, Physics specialty, highest honors. **German Abitur,** Physics and mathematics specialties, highest honors, Lycée Français de Berlin, Germany.

Languages and programming skills

German: Native
English, French: Perfectly proficient

Korean: Elementary

Perfectly proficient Pytho

Matlab, R: Advanced level Python, C, C++: Intermediate level

Bash, Java, SQL: Basics

Since 2018, development of a unified platform on missing values methods and workflows, founded by the R Consortium.

Rewarding experiences, outstanding qualities and hobbies

I have been living abroad since 2013. Before that I grew up in Berlin, Germany. I am curious, organised, hard working and I love a challenge. My hobbies are reading, playing the piano, yoga, traditional Korean dance, the theatre and travelling.

Since 2019, I am involved in the R Foundation *Forwards* taskforce on women and other underrepresented groups and since April 2019 I am an elected member of the parity and diversity committee of the CMAP, promoting a diversification of the lab's teams of researches and PhD students