Andreas Küpper

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Experience

QuantCo, Boston, MA, *Data Scientist* — Since Oct 2016
- Worked on projects related to elasticity pricing and demand forecasting for an e-retailer
- Designed, executed and analyzed experiments on e-retailer's website
- Presented results to executives and acted as point-of-contact for business stakeholders
- Guided interns and junior employees in data science projects

Insight Data Science, Boston, MA, *Consultant* — Sep 2016
- Mentored 18 Insight fellows in data science projects, giving them guidance in choice of topics, selection of data sources, setting realistic scopes and picking the right methods
- Held workshops on machine learning for Boston and San Francisco sessions

Insight Data Science, Boston, MA, *Fellow* — Jun – Aug 2016
- Built STDand.Me, a web application for STD risk assessment using Flask, Bootstrap & D3
- Used CDC and Census data to develop a Random Forest model for STD rate prediction

Columbia University, New York, NY, *Hubble Research Fellow* — 2013 – 2016
- Measured the mass of the Milky Way by using Bayesian inference modeling with Markov-Chain Monte Carlo, and compared 10^7 tidal stream models to observational data
- Used unsupervised learning methods for stream classification on dataset of 10^9 stars
- Organized several large international meetings and workshops (> 100 participants)

Yale University, New Haven, CT, *Research Fellow* — Mar – Sep 2013
- Developed a Bayesian framework in Python/C for statistical modeling of tidal streams
- Queried data from the SDSS database and analyzed it using difference-of-Gaussians filters

Universität Bonn, Germany, *Postdoctoral Researcher* — 2011 – 2013
- Developed open-source tools to efficiently create models of tidal streams and star clusters
- Worked with noisy telescope datasets and large datasets from numerical simulations
- Performed statistical analyses on datasets using various statistical tests and methods such as kernel-density estimation, k-nearest neighbors, KS tests and bootstrapping

Education

Universität Bonn, Germany, PhD in Astrophysics, *summa cum laude* — 2011

Universität Bonn, Germany, Diplom in Physics (MSc equivalent) — 2007

Skills

Programming: Python, SQL, Hive, Shell scripting, C, R, JavaScript
Libraries: Pandas, XGBoost, Scikit-learn, StatsModels, Matplotlib, Seaborn, ggplot2, D3
Leadership: Mentored 8 PhD/MSc students, guiding them to publications and conference participations
Communication: $50+$ presentations at conferences/public events and 26 peer-reviewed publications