Ulrich Feindt

Software Developer | Data Scientist | Problem Solver

CONTACT

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EDUCATION

PhD, Physics | 2015
Universität Bonn, Germany

Diplom (MSc), Physics | 2011
Universität Bonn, Germany

SKILLS

Physics/Astronomy
Statistical analysis
Machine Learning
Scientific writing
Public speaking

CODING/SOFTWARE

Python (Expert)
git (Advanced)
HTML/CSS (Advanced)
JavaScript (Advanced)
LaTeX (Advanced)
Linux (Advanced)
SQL (Advanced)
C/C++ (Basic)
PHP (Basic)

LANGUAGES

German (Native)
English (Fluent)
Swedish (Basic)
Danish (Basic)

IMMIGRATION STATUS

EU Citizen

PROFILE

Software developer and data scientist with 8 years of research experience in astrophysics. Collaborated on international projects to find exploding stars, developing software for data management, survey planning, and data analysis, coordinated a scientific work group. Skilled in statistics, machine learning, programming, problem solving, and creative thinking.

EXPERIENCE

Researcher — **international**

August 2015 - September 2019 — Stockholms universitet, Sweden
May 2017 - September 2017 — Caltech, Pasadena, CA, USA
June 2014 - July 2015 — Humboldt-Universität zu Berlin, Germany
December 2011 - May 2014 — Universität Bonn, Germany
January 2012 - March 2012 — Yale University, New Haven, CT, USA

Worked at 5 different universities on various projects imaging the night sky repeatedly to detect exploding stars, optimizing the survey strategy for discovery and data acquisition.

Developed software for simulating the results of surveys imaging the night sky and optimize the strategy and tools for web access and assessment of data. Analyzed irregularly sampled data of various astronomical events. Simulated and studied observability of astronomical objects. Developed statistical tests for the dependence of the expansion of the universe on direction. Used Boosted Decision Tree classifiers to reduce false positives from imaging pipeline.

Coordinated working group efforts within the projects. Supervised students at various levels, ranging from Bachelor to PhD. Worked as a teaching assistant for courses in experimental and theoretical physics.

SOFTWARE DEVELOPMENT

Lead Developer — **simsurvey**

Developed Python package for simulating the data obtained by any optical telescope imaging the night sky repeatedly, used in project planning several times a year to adjust and optimize the strategy and to assess data acquisition efficiency as well as correct biases for data analysis.

Software Developer — **GROWTH Marshal**

Contributed to backend and frontend of a web platform that collects data from telescope observations, views them for analysis, and allows telescope control for further investigations, used by more than 200 researchers. Worked on data ingestion (Kafka stream to PostgreSQL DB) and data visualization.

PROJECT MANAGEMENT

Coordinator — **ZTF cosmology program**

Coordinated working group consisting of ~10 researchers at 5 institutions across the globe, in order to produce a clean and unbiased data set for analysis, setting up regular meeting and distributing work and science projects.

HOBBIES

Board Games

Playing and collecting board games of various types, mostly strategic and cooperative ones. Set up, ran and managed the community of a website allowing players across the globe to play a large strategic board game online (from 2013 to 2019). Volunteered to explain and sell games at the world's largest board game fair Spiel in Essen, Germany (since 2013).