Amanuel Wolde-Kidan, Ph.D.

Data Scientist with a background in physics, combining business aptitude with 6+ years of experience in statistical modeling, scientific software engineering and data visualization.

Contact

+49 15773182877
amanuel.woldekidan@gmail.com
Kluckstr. 30, 10785 Berlin, Germany
scholar.google.de/citations?user=5ayp5j8AAAAJ 🎓
linkedin.com/in/amanuel-woldekidan 💼
github.com/woldeaman 🐙

Technical Skills

Proficiency: $* * * > ** > *$

Programming

Python***, Git***, CI/CD***, Bash***,
MLFlow***, Streamlit***, Airflow**,
AWS**, Docker**, RESTful APIs**,
SQL**, HDF5*, Matlab*, C++*, Java*, R*

Data & Modeling

NumPy/SciPy***, scikit-learn***, (Geo)Pandas***,
Matplotlib***, Seaborn***, Tensorflow**, SHAP**,
XGBoost**, Catboost**, Numba*, spaCy(NLP)*

Transferable Skills

Leadership

Supervision of junior data/software engineers
Teaching/examination of 150+ physics students

Teamwork

Leading model development in team of four
Open-source software development

Communication

Data-based consulting of C-level decisions
Designing and publishing 10+ scientific papers

Selected Publications

2021 | Wolde-Kidan et al., Biophysical Journal,
Diffusivity and Free Energy of Hydrogels
2019 | Wolde-Kidan et al., Phys. Chem. Chem. Phys.,
Hydration of Lipid Membranes

Languages

German(Native), English (Fluent C2),
French (Basic A2), Amharic (Basic A2)

Other

German-physical-society (DPG) member,
Basketball Coach, "Stay-In!" Mentor

Work Experience

10/2021 - 11/2022 | Valyria Technology, Berlin
Senior Data Scientist

+scikit-learn +Tensorflow +Catboost +XGBoost +(Geo)Pandas +SHAP +Bash +CI/CD +Docker +AWS +MLFlow +Airflow +RESTful APIs +SQL +Streamlit +Seaborn

- Completed EU-funded research project for automated real estate valuation in collaboration with the Hasso-Plattner-Institute
- Designed and set up company-wide data and model development architecture from scratch
- Employed clustering and model stacking in combination with geodata feature engineering to improve valuation accuracy by 15%
- Deployed final model with continuous tracking approach for reliability and efficiency

07/2016 - 09/2021 | Free University, Berlin
Research Scientist

+NumPy/SciPy +Bash +Pandas +Matplotlib +Seaborn +Numba +HDF5 +Matlab +C++

- Worked on distributed computer simulations of lipid membranes and developed python based open-source evaluation software
- Designed framework for analysis of large-scale noisy hydrogel penetration data using non-linear optimization algorithms
- Assisted teaching in lectures and supervised undergraduate and post-graduate students

Education

07/2016 - 09/2021 | Free University, Berlin
Ph.D. Thesis, Computational Physics
Solutes and Ions at Biological Interfaces

08/2015 - 06/2016 | Imperial College, London
Master Thesis, Bioengineering
Drag Optimization by Cochlear Hair Bundles - Grade: 1.0

10/2010 - 06/2016 | Humboldt University, Berlin
B.Sc & M.Sc Biophysics
2016 | Master of Science, Biophysics - Grade: 1.2
2013 | Bachelor of Science, Biophysics - Grade: 1.1

Scholarships & Mentorships

09/2022 - now | Google Research AI, Berlin
Google Mentorship Program
Reoccurring one-on-one mentoring sessions with leading Google Research AI scientist

07/2016 - 06/2017 | German Research Foundation
Ph.D. Scholarship
Research scholarship awarded by the Collaborative Research Center for "Nanocarriers: Architecture, Transport, and Topical Application of Drugs for Therapeutic Use"

09/2013 - 06/2016 | Studienstiftung
Student Scholarship
Membership and scholarship awarded by the German Academic Scholarship Foundation