

DEBANJAN BASU

Senior Software Engineer – ML & Data Systems

debanjan.basu.ds@gmail.com · +49 176 5885 5011 · Berlin, Germany
[linkedin.com/in/debanjan-basu](https://www.linkedin.com/in/debanjan-basu) · github.com/d3banjan · medium.com/@debanjanbasu

PROFILE

Software engineer with 6+ years building production data systems and web applications. Strong Python expertise with background in data science and ML (time series forecasting, predictive modeling). Recently focused on GenAI agent development and trajectory analysis. Delivered 5–10× performance gains on data pipelines. Physics background in computational methods.

EXPERIENCE

Senior Python Developer

Nexern GmbH, Berlin

Aug 2020 – Present

- Built and maintained **Django application** for affiliate marketing: SEO link management, web crawlers, and ingestion of large-scale JSON reports
- Led **greenfield GenAI agent projects**: betting odds prediction and automated web scraping pipelines
- Developed **LLM agents** using Google ADK; observability with Arize Phoenix for trajectory analysis
- Achieved **5–10× speedups** via Dask distributed processing, Celery task queues, vectorized operations
- Deployed ADK agents with **Docker** on VPS; S3/MinIO storage; GitLab CI/CD
- Mentored junior developers; conducted code reviews

Data Scientist

KUGU Home GmbH, Berlin

May 2018 – Jul 2020

- Developed **predictive heat models** (Fourier equation) and **time series forecasting** with TensorFlow/XGBoost
- Built **online changepoint detection** for anomaly detection in IoT boiler systems
- Co-developed **IoT pipeline** for hundreds of devices; deployed to OpenStack via Ansible
- Ensured **GDPR compliance** in data handling workflows

Research Assistant

TU Clausthal, Clausthal

Aug 2012 – Oct 2016

- Extended molecular dynamics codebase (Fortran/C); developed novel phonon band algorithm
- Tutored ab-initio modeling; published in peer-reviewed journals

SKILLS

Languages

Python, C, CUDA, Rust, Fortran

ML / Deep Learning

PyTorch, TensorFlow
scikit-learn, XGBoost

LLM / GenAI

Google ADK
Arize Phoenix

Data Engineering

Dask, Celery
Polars, PostgreSQL

Cloud / DevOps

AWS (S3, EC2)
Docker, Kubernetes
GitLab CI, Ansible

EDUCATION

B.S–M.S in Physics

IISER Kolkata
2007 – 2012

LANGUAGES

English (**fluent**)
German (**B1**)
Hindi (**native**)
Bengali (**native**)

LINKS

[GitHub](#) · [LinkedIn](#)
[Medium Blog](#)