Vsevolod Nedora, Ph.D.

Data Scientist | AI Solutions Engineer

Phone: +49-1522-4239-433
Email: vsevolodnedora@gmail.com
Aufenthaltstitel: Niederlassungserlaubnis
Webpage: https://vsevolodnedora.github.io/

Data Scientist with over 6 years of experience in computational modeling, machine learning, and software development. Proven ability to deliver high-performance solutions under tight deadlines and manage cross-functional projects. Skilled in translating complex technical concepts into practical applications that drive business value. Seeking to leverage expertise in coding, data analysis, and modeling to innovate within the energy or engineering industries.

KEY SKILLS & EXPERTISE

- Programming & Software Development:
  - **Python:** Data analysis, modeling, scripting; libraries include NumPy, pandas, scikit-learn, PyTorch, SciPy
  - **C++:** High-performance computing, algorithm optimization, object-oriented programming
  - **MLOps & CI/CD:** GitHub Actions, Docker
  - **Others:** Bash scripting, SQL, Git, RESTful APIs, Cloud Platforms
- Data Science & Machine Learning:
  - **Machine Learning:** Regression, classification, decision trees, neural networks, ensemble methods
  - **Deep Learning Frameworks:** PyTorch, TensorFlow
  - **Data Visualization:** Matplotlib, Plotly, Seaborn
  - **Data Engineering:** ETL processes, data pipelines, handling large datasets (30+ terabytes), data cleaning, feature engineering
  - **Time-Series Analysis:** Forecasting models, anomaly detection
- Project Management & Leadership:
  - **Agile methodologies:** (Scrum, Kanban), team leadership, project planning, deadline management
  - **Cross-functional collaboration** with diverse teams
  - **Stakeholder communication** and engagement
- Business & Strategic Communication:
  - Translating technical concepts for non-technical audiences
  - Aligning technical projects with business objectives

PROFESSIONAL EXPERIENCE

Max-Planck-Institut für Gravitationsphysik, Potsdam, Germany   2021 – Present
Data Scientist, R&D
- **Optimized Simulation Software:**
    - Enhanced 'PyBlastAfterglow' by porting components to C++, increasing computational speed by **10x**.
- **Project Management:**
    - Led a cross-functional team of **5+** researchers implementing Agile methodologies to improve team productivity.
- **Stakeholder Engagement:**
    - Regularly presented project updates to stakeholders and professors, adapting technical language for non-specialist audiences.
- **Machine Learning Application:**
    - Prototyped a surrogate model using conditional variational autoencoders, reducing simulation times by **99%**.

Friedrich-Schiller-Universität, Jena, Germany   2018 – 2021
Data Scientist, Ph.D. researcher
- **Software Development:**
    - Initiated and released 'PyBlastAfterglow,' adopted by **3+** research teams.
- **Data Pipeline Management:**
    - Managed datasets of **30+ terabytes**, reducing processing time by **50%**.
- **Team Collaboration:**
    - Collaborated with multidisciplinary teams, contributing to **4 first-author** and **7 co-authored** high-impact journal publications.
- **Deadline Achievement:**
    - Completed Ph.D. and all related research projects within **3 years.**

MACHINE LEARNING & INDUSTRY PROJECTS

MLOps Pipeline for Electricity Price Forecasting [Github]   Personal Project | 2024
- Designed a **CI/CD** pipeline to forecast day-ahead electricity prices in Germany.
- Automated data extraction from energy and weather **APIs** for real-time availability.
- Developed ensemble and deep-learning predictive models.

EDUCATION

Friedrich-Schiller-Universität Jena, Jena, Germany   2021
Ph.D. in Theoretical Theoretical Astrophysics   Grade: Magna Cum Laude
Universität Bonn, Germany   2018
Master's degree in Astrophysics
LANGUAGES: English (fluent); Russian (fluent); German (intermediate).
PERSONAL BRANDING: active on LinkedIn (ML Top Voice); Publish on Medium.