

Vangelis Kourlitis PhD

Data Scientist | ex-CERN

PROFILE

Data scientist with 10 years experience in technical projects and leadership positions at CERN. Specialized in developing scalable pipelines in big data analytics and machine learning domains. Skilled leader with extensive experience mentoring teams, managing R&D projects and authoring and reviewing technical reports. Now seeking to transition into business-oriented role, master new tooling and enhance data-driven decision-making.

CONTACT

Location: Thessaloniki, Greece

Email: kourlitisV@hotmail.com

Tel: +30 6949552002

LinkedIn: vangelis-kourlitis

GitHub: ekourlit

SKILLS

Programming

Python • SQL • Bash • C++

DevOps & Cloud

Git (CI/CD) • Docker • GCP • AWS
(SageMaker)

Distributed Compute

Dask • Apache Spark • Ray

EDUCATION

UNIVERSITY OF SHEFFIELD

PhD in Physics

2015 - 2019 | Sheffield, UK

ARISTOTLE UNIVERSITY OF THESSALONIKI

B.Sc. in Physics

2009 - 2015 | Thessaloniki, GR

EXPERIENCE

CERN & TECHNICAL UNIVERSITY OF MUNICH | Geneva, CH Analysis Model Group Coordinator

Oct 2023 - Dec 2024

- Directed a global, 120-member cross-functional team with Agile methodologies, delivering 24/7 production support and new features for a ~1 M LOC data analysis platform serving more than 3,000 users, while overseeing code review and testing to ensure quality and reliability.
- Reduced organizational data storage costs threefold by adopting a lightweight columnar data format and a dashboard-based monitoring system to proactively troubleshoot data-quality issues.
- Rolled out streamlined software configuration paradigm, reducing analysts onboarding time by over 95%.
- Planned and supervised early-career developers projects, delivering innovative software products on time and fostering professional growth.

Data Science Researcher

Mar 2023 - Sept 2023

- Awarded €40k grant to modernize legacy ETL tools for big data stream analysis ($O(100\text{ TB})$) with scalable array-based solutions, achieving 4x faster analysis and aligning with modern Pythonic data science standards.

ARGONNE NATIONAL LABORATORY | Chicago, US Data Science Researcher

Nov 2019 - Feb 2023

- Led a research team of 7 in applying advanced analysis algorithms and deep learning for complex data classification, increasing analysis coverage by 12%.
- Established FAIR principles for AI models and standardized methodologies among international research teams, allowing faster review cycles and enhanced transparency across projects.
- Stress-tested Google Cloud Platform's readiness and scalability for big data analysis workflows, minimizing TCO by optimizing egress.
- Developed an end-to-end CNN computer vision model, with multi-GPU training strategy in PyTorch and MLflow, to restore fast, low-accuracy sensor images and improve simulation software cost-efficiency by up to 20%.

UNIVERSITY OF SHEFFIELD | Sheffield, UK Doctoral Researcher

Nov 2015 - Oct 2019

- Developed and maintained C++ data-analysis software across the full development lifecycle, enabling high-throughput distributed computations on a 500k core computing grid.
- Authored the first technical report at CERN to open source a complete statistical model, setting a precedent for reinterpretation and transparency in the field.
- Taught Python programming, scientific computing and ML fundamentals to MSc students through hands-on lab sessions.