Konstantinos (Dean) Ziliaskopoulos

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EDUCATION

PhD in Industrial & Systems Engineering

Auburn, AL

Auburn University

Expected Graduation 2029 – **4.0 GPA**

Masters in Social Business

Athens, Greece Graduated 2023

University Peloponnese & National Center for Social Research Integrated Masters in Electrical & Computer Engineering

Thessaloniki, Greece

Aristotle University of Thessaloniki

Graduated 2021

TECHNICAL SKILLS & TECHNOLOGIES

Programming: Python, R, Julia, SQL, Docker, Git

Data Science/Engineering: Pandas, FastAPI, Geopandas, ArcGIS Pro

ML/DL/Optimization: Keras/Tensorflow, Pytorch, Scikit-learn, statsmodels, Gurobi, networkx

Simulation Technologies: Stella, Simio, SimPy, Gym/Gymnasium

Cloud Technologies: GCP (Google Cloud Run, BigQuery, Compute Engine, Cloud Storage)

Languages: English [Native], Greek [Native], Turkish [Intermediate]

Citizenships: Greek and US Citizen

WORK EXPERIENCE

Auburn University, AL

Auburn, AL

Research Assistant – Inventory Control

October 2024 – Present

- Developed an inventory control optimization model using simulation and mixed integer linear programming for the US Air Force as part of a research assistantship.
- Participated in a teaching assistantship for over 200 undergrads in Deterministic Operations Research, Statistical Quality Control, Modern Tools for Data Analytics.

ATHENA Research Center

Athens, Greece

Research Associate

2022 - 2024

- Worked on a Horizon Europe project (4.1 million €) focused on biodiversity, <u>BIONEXT</u>.
- Participated and published a systematic literature review of 2633 articles on resource interlinkages by collaborating with 9 other partner institutions in 7 other countries.
- Developed 6 national dynamic simulation models for resource management and their impact on the 17 Sustainable Development Goals in Europe.

University of Thessaly, Greece

Volos, Greece

Research Associate – Data Science, Department of Environmental Sciences

2021 - 2024

- Worked on 4 interdisciplinary European Horizon 2020 projects with 100+ European partners on data science and machine learning applications on climate hazards and urban sustainability.
- Led part of a **1,000,000€** case study in Athens, Greece, which resulted in 3 journal publications on network analysis, knowledge graphs and graph databases, and quantifying vulnerability through model inference and geospatial data analysis for ARSINOE.
- Managed front-end development for a case study database for over 2000 case studies and personally set up a GCP database and API to serve the platform.

SingularLogic

Athens, Greece

Early-Stage Researcher

2021-2022

• Secured a 1-year Marie-Curie fellowship on the ENDORSE European HORIZON project, which culminated in the development of a video encoding algorithm in Python and IEEE conference publication.

JOURNAL PUBLICATIONS

- 1. **Ziliaskopoulos**, **K**. & Papalamprou, K. A Bilevel Linear Programming Model for Developing a Subsidy Policy to Minimize the Environmental Impact of the Agricultural Sector. *Sustainability* 2022, 14, 7651. https://doi.org/10.3390/su14137651, **IF: 3.9**
- 2. Laspidou, C. & **Ziliaskopoulos, K**., Using System Dynamics Modelling to visualize the effects of resource management and policy interventions on biodiversity at a regional scale. *Ecological Indicators* 2022, 145, 109630. https://doi.org/10.1016/j.ecolind.2022.109630, **IF: 7.0**
- 3. **Ziliaskopoulos, K**., & Laspidou, C., Using remote-sensing and citizen-science data to assess urban biodiversity for sustainable cityscapes: the case study of Athens, Greece. *Landscape Ecology*, 39(2), 9, 2024. https://doi.org/10.1007/s10980-024-01793-4, **IF: 4.9**
- 4. Charakopoulos, A., Karakasidis, T., **Ziliaskopoulos, K**. Laspidou, C. Complex network analysis of climate and landscape satellite data to explore spatio-temporal patterns in urban environment: the case of Athens. *Applied Network Science*, *9*(1), *42*. *2024*. https://doi.org/10.1007/s41109-024-00652-0
- H. Kim, A. Lazurko, G. Linney, L. Maskell, E.-D.-General, R. J. Březovská, H. Keune, C. Laspidou, H. Malinen, S. Oinonen, J. Raymond, M. Rounsevell, S. Vaňo, M. D. Venâncio, A. Viesca-Ramirez, A. Wijesekera, K. Wilson, **Ziliaskopoulos K.**, P. Harrison. Understanding the role of biodiversity in the climate, food, water, energy, transport and health nexus in Europe, *Science of the Total Environment*, 925, 171692, ISSN 0048-9697, 2024. https://doi.org/10.1016/j.scitotenv.2024.171692, IF: 8.2
- 6. **Ziliaskopoulos, K.**, Petropoulos, C., Laspidou, C. Quantifying and Mapping Vulnerability to Extreme Heat Using Socio-Economic Factors at the National, Regional and Local Level. *Sustainability*, 16(17), 7603, 2024. https://doi.org/10.3390/su16177603, **IF: 3.9**
- 7. Androna, C. M., Mandilara, I., Fotopoulou, E., Zafeiropoulos, A., Papavassiliou, S., **Ziliaskopoulos, K.**, & Laspidou, C. An open and interoperable Knowledge Management framework for Climate Change Vulnerability Assessment. *ACM Journal on Computing and Sustainable Societies*, 2024. https://doi.org/10.1145/3698819
- 8. Valve, H., D'Amato, D., Hebinck, A., Lazurko, A., de Pater, M., Březovská, R.J., Saarikoski, H., Laspidou, C., Keune, H., **Ziliaskopoulos, K**. Transformative change from below? Linking biodiversity governance with the diversity of bottom-up action. *Environmental Science & Policy*, 164, 104000, 2025. https://doi.org/10.1016/j.envsci.2025.104000 **IF: 4.9**
- 9. **Ziliaskopoulos, K.,** Vinel, A., Smith, A. Bridging the Gap: A Practical Guide to Implementing Deep Reinforcement Learning Simulation in Operations Research with Gymnasium. *Proceedings of the 2025 Winter Simulation Conference*. Accepted for publication.