George Levis

My Website | levgiorg@gmail.com | Linkedin | Github

EXPERIENCE

Machine Learning Engineer & Research Associate

FourDotInfinity

- Leading development of production-grade ML systems and MLOps infrastructure across multiple domains
- Designing and implementing large-scale deep learning models with focus on performance optimization
- Contributing to R&D projects in AI applications including 6G wireless communications
- Architecting distributed training pipelines using Kubernetes for edge computing applications

IT Support Analyst

Viacar S.A.

- Managed IT procurement, installation, and configuration.
- Provided technical support for smooth operations.
- Conducted system maintenance for optimal performance.
- Resolved complex technical issues as the primary point of contact.

EDUCATION

| National Technical University of Athens (5 year program) | Athens |
|--|-----------------------------|
| MSci in Applied Mathematical and Physical Sciences | $Sep. \ 2019 - Feb. \ 2025$ |
| Lykovrysi's General High school | Lykovrysi, Athens |

Projects

Multi-Agent Energy Management System | Python, PyTorch, DRL

- Developed a distributed energy management simulation framework modeling multiple household HVAC systems and storage units.
- Implemented reinforcement learning algorithms to optimize energy distribution across the network while maintaining temperature constraints.
- Designed price-based coordination mechanisms between local agents and a central orchestrator for efficient grid interaction.

Conflict Management in O-RAN | *Python, Deep Learning, O-RAN* | arXiv

- Developed a generalized conflict management framework for multi-channel power control in O-RAN xApps.
- Implemented DRL-based solutions for optimizing network power control and energy efficiency.
- Created evaluation framework using Network Digital Twin (NDT) achieving significant energy savings.

PUBLICATIONS

| COMIX: Gene | eralized Conflic | t Management | \mathbf{in} | O-RAN | xApps |
|-------------|------------------|--------------|---------------|--------------|-------|
|-------------|------------------|--------------|---------------|--------------|-------|

arXiv preprint

- Proposed a novel conflict management framework for Deep Reinforcement Learning (DRL)-based xApps in O-RAN environments.
- Developed and validated multi-channel power control optimization techniques using Network Digital Twin.
- Demonstrated significant network energy savings through intelligent conflict resolution mechanisms.

Technical Skills

Machine Learning: Deep Learning, Supervised Learning, Unsupervised Learning, NLP, Computer Vision, Reinforcement Learning, Explainable AI ML Frameworks: PyTorch, TF, TF federated, Keras, Scikit-learn, Hugging Face, XGBoost, LightGBM, SHAP, LIME MLOps: Kubernetes, Docker, MLflow, Kubeflow, CI/CD, Model Monitoring, Feature Stores, A/B Testing Cloud & Big Data: AWS, GCP, Spark, SQL, MongoDB **Programming:** Python, Java, C++, R, MATLAB Development: Git, Linux, REST APIs, Microservices, System Design, Agile/Scrum

Sep. 2024 – Present Athens, Greece

Sep. 2015 - June 2018

Athens, Greece

Mar. 2020 - Jan. 2021

2024

2024

2024

arXiv:2501.14619