IASON OFEIDIS

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EDUCATION

Yale University, New Haven, CT — Expected May 2028
Ph.D., Electrical & Computer Engineering
Selected Courses: Intermediate Machine Learning, Distributed Systems, Graph Neural Networks, Big Data Systems
Awards: Gerondelis Foundation Award, Yale Graduate School of Arts and Sciences Student Fellowship

Aristotle University of Thessaloniki, Thessaloniki, Greece — June 2020
M.Eng., Electrical & Computer Engineering, Major: Telecommunications

RESEARCH EXPERIENCE

Nokia Bell Labs, *Networking Research Intern*, Murray Hill, NJ — June – August 2025

- Engineered a scalable, **Clustered Federated Learning** framework for joint anomaly detection and attack classification in resource-constrained IoT environments, with findings currently being prepared for publication.

Yale University, *Graduate Researcher*, New Haven, CT — August 2023 – Present

- Co-designed and developed compression modules for Split Learning, achieving up to a **4x reduction** in network usage compared to baseline models. Conducted comprehensive simulations and real-world experiments across multiple datasets, communication and device setups to demonstrate the effectiveness of the approach.
- Currently investigating **Split Federated Learning** with multi-modality, incorporating large language models (LLMs) to address diverse communication and computation constraints, focusing on system efficiency and performance.
- Collaborated with cross-functional teams on NSF-funded projects spanning U.S. and international universities, actively attending and showcasing research at annual meetings to share insights and strategies.

Yale University, *Research Engineer*, New Haven, CT — November 2021 – July 2023

- **Benchmarked** 7 data loading libraries through 10 hyperparameter experiments across 3 computer vision datasets, conducted both locally and in the cloud, addressing performance and efficiency issues.
- Developed and currently maintain the **first open-source framework** for data loader benchmarks, highlighting inherent differences, facilitating even comparison, and suggesting new research directions.
- Built an Ethereum data scraper, managed and analyzed **2TB+ of blockchain** data to reveal how Decentralized Finance (DeFi) responds to federal monetary policy decisions, impacting digital asset returns.

Center of Research & Technology Hellas, *Research Assistant,* Thessaloniki, Greece — July – October 2021

- **Led the redesign** and refactoring of TRIPR, a bioinformatics software, transforming it into a fully functional Bioconductor package with both standalone and library capabilities, significantly boosting its user base.
- Improved lab efficiency by **automating code testing** and evaluation workflows using GitHub Actions, resulting in streamlined computational processes and faster project completion times.

TECHNICAL SKILLS

- Programming Languages: Python, Go, Rust, R, Java, C/C++, MATLAB, Linux/MacOS Shell Scripting (Bash)
- Frameworks: PyTorch, TensorFlow, PyG, Scikit-Learn, Django
- Tools: Git, Jupyter Notebooks, Docker, Kubernetes, k3s, protobuf, LaTeX, Pandas, NumPy, SciPy, Conda

SELECTED PUBLICATIONS

- **Ofeidis, I.,** Panitsas, I. & Tassiulas, L. (2025). "*On-Device Multimodal Federated Learning for Efficient Jamming Detection.*" arXiv preprint arXiv:2508.*09369*.
- **Ofeidis, I.**, Kiedanski, D., & Tassiulas, L. "*An Overview of the Data-Loader Landscape: Comparative Performance Analysis*". Accepted at the 2024 IEEE International Conference on Big Data.
- Mudvari A., Vainio A., **Ofeidis I.**, Tarkoma S., & Tassiulas L. "*Adaptive Compression-Aware Split Learning and Inference for Enhanced Network Efficiency*". ACM Transactions on Internet Technology 2024.