

Ioannis Panitsas

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Research Area

I am a fourth-year Ph.D. candidate in Electrical and Computer Engineering at Yale University, working at the intersection of next-generation wireless networks (5G/6G, Open-RAN) and machine learning.

Research interests: network optimization • network security • networked systems • learning-driven systems

Education

Yale University , New Haven, CT, USA Ph.D. Candidate in Electrical and Computer Engineering Advisor: Prof. <i>Leandros Tassiulas</i>	08/2022 – 08/2027
Yale University , New Haven, CT, USA M.Phil. in Electrical and Computer Engineering (Honors)	09/2022 – 05/2025
Yale University , New Haven, CT, USA M.Sc. in Electrical and Computer Engineering (Honors)	09/2022 – 12/2023
School of Military Engineering , Loutraki, Greece 2nd Lieutenant, Engineering Corps, Hellenic Army	03/2021 – 05/2022
University of Patras , Patras, Greece B.Sc. & M.Sc. in Electrical and Computer Engineering (Top 2%) Advisor: Prof. Dimitrios Serpanos	09/2016 – 07/2021

Selected Publications

- **I. Panitsas**, T. Atalay, D. Stojadinovic, A. Stavrou, and L. Tassiulas, "SlicePilot: Demystifying Network Slice Placement in Heterogeneous Cloud Infrastructures," *IEEE INFOCOM — IEEE Conference on Computer Communications*, 2026.
- **I. Panitsas**, I. Ofeidis, and L. Tassiulas, "FedJam: Multimodal Federated Learning Framework for Jamming Detection," *IEEE INFOCOM — IEEE Conference on Computer Communications*, 2026.
- **I. Panitsas**, Y. Yigit, L. Maglaras, L. Tassiulas, and B. Canberk, "JamShield: A Machine Learning Detection System for Over-the-Air Jamming Attacks," *Proceedings of the IEEE International Conference on Communications (ICC)*, 2025.
- **I. Panitsas**, A. Mudvari, and L. Tassiulas, "D2Q Synchronizer: Distributed SDN Synchronization for Time-Sensitive Applications," in *Proceedings of the IEEE International Conference on Machine Learning for Communication and Networking (IEEE ICMLCN)*, 2025.
- **I. Panitsas**, T. Atalay, D. Stojadinovic, Angelos Stavrou and L. Tassiulas, "5GC-Bench: A Framework for Stress-Testing and Benchmarking 5G Core VNFs," under review.
- **I. Panitsas**, A. Mudvari, A. Maatouk, and L. Tassiulas, "A Deep and Transfer Learning Approach for Handover Management in O-RAN," under review.

Industry Experience

Research Scientist Intern , A2 Labs – Arlington, VA, USA	07/2025 – 08/2025
<ul style="list-style-type: none">• Implemented a topology orchestrator for optimal slice placement in heterogeneous cloud infrastructures.• Built <i>5GC-Bench</i>, a benchmarking framework for stress-testing and profiling 5G Core VNFs.	

Research Scientist Intern, Kryptowire Labs – Arlington, VA, USA 07/2024 – 08/2024

- Developed *SlicePilot*, a reinforcement learning-based framework for online VNF placement in heterogeneous cloud environments.

Embedded Software Engineer Intern, Renesas Electronics – Patras, Greece 08/2020 – 10/2020

- Performed link-layer penetration testing and security evaluation of the Bluetooth Low Energy 5.0 protocol, identifying protocol-level vulnerabilities through crafted over-the-air exploits.

Teaching Experience

Teaching Assistant, Yale University – New Haven, CT, USA 01/2025 – 05/2025

- Course: Introduction to Computing for Engineers and Scientists, ENAS 130

Teaching Assistant, Yale University – New Haven, CT, USA 08/2024 – 12/2024

- Course: Introduction to Communications and Control, EENG 202

Teaching Assistant, Yale University – New Haven, CT, USA 01/2024 – 05/2024

- Course: Introduction to Computing for Engineers and Scientists, ENAS 130

Workshops

- **CyberPowder Fellows Program 2025**, University of Utah, Salt Lake City, UT, USA
Participated in an on-site research workshop on the POWDER wireless testbed.
- **Open AI Cellular (OAIC) Workshop 2024**, Mississippi State University, Starkville, MS, USA
Engaged in hands-on experimentation at the OAIC research workshop.
- **Young Gladiators Workshop 2024**, Northeastern University, Boston, MA, USA
Participated in an on-site research workshop on the Colosseum wireless emulator.

Reviewer Roles

- IEEE Communications Magazine
- IEEE/ACM Transactions on Networking
- ACM SIGMETRICS
- IEEE Military Communications Conference

Skills

- **Programming:** Python, C/C++ , OpenMP, JavaScript, Java, SQL, MongoDB, HTML, CSS, Node.js
- **Tools:** Docker, Kubernetes, Helm

Languages

- English (fluent), Greek (native)