Ioannis Panitsas

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Research Area

I am a third-year Ph.D. candidate in the Department of Electrical and Computer Engineering at Yale University, specializing in the development of intelligent, scalable, and automated closed-loop control algorithms for optimizing the performance and security of next-generation networks.

Education

Yale University , New Haven, CT, USA Ph.D. Candidate in Electrical and Computer Engineering Advisor: Prof. <i>Leandros Tassiulas</i>	08/2022 - 08/2028
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%) <i>Advisor:</i> Prof. Dimitrios Serpanos	09/2016 - 07/2021

Publications

- 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.
- Y. Yigit, I. Panitsas, L. Maglaras, L. Tassiulas, and B. Canberk, "Cyber-Twin: Digital Twin-boosted Autonomous Attack Detection for Vehicular Ad-Hoc Networks," in *Proceedings of the IEEE International Conference on Communications (ICC)*, 2024.
- I. Panitsas, A. Mudvari, A. Maatouk, and L. Tassiulas, "A Deep and Transfer Learning Approach for Handover Management in O-RAN," *Preprint*.
- I. Panitsas, T. Atalay, D. Stojadinovic, and L. Tassiulas, "Optimizing Slice Placement in Distributed Cloud Infrastructures," *Preprint*, available soon.
- I. Panitsas, A. Mudvari, and L. Tassiulas, "Learning Adaptive Synchronization Policies for Distributed SDN Controllers," *Preprint*, available soon.
- I. Panitsas*, I. Ofeidis*, and L. Tassiulas, "FedJam: Distributed Multi-Modal Jamming Detection with Privacy-Preserving Learning," *Preprint*, available soon.
- A. Feng, A. Varvarigos, I. Panitsas, D. Fernandez, J. Wei, J. Chen, A. Maatouk, L. Tassiulas, R. Ying, "TelecomTS: A Multi-Modal Dataset for Time-Series and Language Analysis in Applied Engineering," *Preprint*, available soon.

Awards

- Gerondelis Foundation Graduate School Grant (2024)
- Yale University Graduate Fellowship (2022)

Industry Experience

Research Scientist Intern, Kryptowire Labs – Arlington, VA, USA	07/2024 - 08/2024
• Developed a deep reinforcement learning-based scheduler and deployed it in a system proto VNF placement in heterogeneous cloud environments.	type for optimal
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 identifying protocol-level vulnerabilities through crafted over-the-air exploits.	y 5.0 protocol,
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 Standards Magazine
- IEEE Military Communications Conference (MILCOM)

Skills

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

Languages

• English (fluent), Greek (native)