Spilios Evmorfos

Email: se386@scarletmail.rutgers.edu | **Website:** spiliosev.github.io | **GitHub:** SpiliosEv

EDUCATION

Rutgers, The State University of New Jersey — **Fall 2020 - December 2024**
Ph.D. in Electrical and Computer Engineering (GPA: 4.00/4.00)
Advisor: Athina P. Petropulu
Research Areas:

- Deep Reinforcement Learning for Wireless Autonomy
- Machine Learning for Inverse Problems in Signal Processing

National Technical University of Athens (NTUA) — **Fall 2018 - Spring 2019**
Masters in Business Administration (MBA)
Specialization: Deep Learning for Time Series Prediction with Application in Finance

National Technical University of Athens (NTUA) — **Fall 2012 - Spring 2018**
BSc and MSc in Electrical and Computer Engineering
GPA: 8.32/10 (top 10%)
Specialization: Computer Science (Major), Signal Processing/Control (Minor)
Thesis: Deep Learning for Time Series Prediction with Application in IoT security

Doukas Lyceum — **Fall 2009 - Spring 2012**
National University Entrance Examination score: 19.704/20.000 (top 1% nationwide)

PROFESSIONAL EXPERIENCE

SIEMENS — **Summer 2022**
Autonomous Systems and Control Group, Princeton, NJ, USA
Developed Unsupervised Pretraining Methods for Deep Reinforcement Learning

RUTGERS UNIVERSITY — **Fall 2020 - Present**
Graduate Student Researcher
-Deep Reinforcement Learning for Motion Control in Relay Networks
-Deep Reinforcement Learning for IRS Phase Shift Design in Wireless Systems
-Deep Generative Modelling for Inverse Problems in Signal Processing

RUTGERS UNIVERSITY — **Spring 2021**
Teaching Assistant
Digital Signal Processing Course
-Taught the weekly Lab Sessions to 110 students
-Graded the biweekly programming assignments (MATLAB)

Institute of Communication and Computer Systems (ICCS) — **Spring 2017 - Spring 2019**
Junior Researcher - Machine Learning
-Recurrent Neural Networks for SYN TCP attack detection

-Implementation of Generative Adversarial Networks for Image Dataset Augmentation
-Part of the Implementation Team for a 4K Streaming application over 5G

PUBLICATIONS

[1] ***Unsupervised Pretraining for Neural Value Approximation***
S. Evmorfos, S. Gumussoy
Internation Conference on Learning Representations (ICLR), 2023 (submitted)

[2] ***Deep Reinforcement Learning for IRS Phase Shift in Spatiotemporally Correlated Environments***
S. Evmorfos, A.P. Petropulu, H.V. Poor
International Conference on Acoustics,Speech and Signal Processing (ICASSP), 2023 (submitted)

[3] ***Deep Actor-Critic for Continuous 3D Motion Control in Mobile Relay Beamforming Networks***
S. Evmorfos, A.P. Petropulu
International Conference on Acoustics,Speech and Signal Processing (ICASSP), 2022

[4] ***Adaptive Discrete Motion Control for Mobile Relay Networks***
A.P. Petropulu, S. Evmorfos, D.S Kalogerias
Frontiers in Signal Processing, 2022

[5] ***Reinforcement Learning for Motion Policies in Mobile Relaying Networks***
S. Evmorfos, K. Diamantaras, A.P. Petropulu
Transactions on Signal Processing, 2022

[6] ***Double Deep Q Learning with Gradient Biasing for Mobile Relay Beamforming Networks***
S. Evmorfos, K. Diamantaras, A.P. Petropulu
Asilomar Conference on Signals, Systems and Computers, 2021

[7] ***Deep Q Learning with Fourier Feature Mapping for Mobile Relay Beamforming Networks***
S. Evmorfos, K. Diamantaras, A.P. Petropulu
International Workshop on Signal Processing Advances in Wireless Communications (SPAWC), 2021

[8] ***Neural Network Architectures for the Detection of SYN Flood Attacks in IoT Systems***
S. Evmorfos,G. Vlachodimitropoulos, N. Bakalos, E. Gelenbe
International Conference on PErvasive Technologies Related to Assistive Environments (PETRA), 2020

HONORS AND AWARDS

Gerondelis Graduate Student Fellowship Award **2021**
Fellowship for PhD students in US Institutions

European Union Innovation Radar **2020**
Proposed algorithm for SYN Flood attack detection was recognized as one of the key innovations for IoT Security

Papakyriakopoulos Award **2015**
Award for Excellence in Mathematics Courses (NTUA)

Papakyriakopoulos Award **2014**
Award for Excellence in Mathematics Courses (NTUA)

The Great Moment of Education Award **2012**

Eurobank Fellowship for graduating first in High School in Nationwide University Entrance Examination

COMPUTER SKILLS

Deep Learning Frameworks: PyTorch, TensorFlow, JAX
Programming Languages: Python, C/C++, MATLAB, Simulink, bash
Tools and Platforms: GNU/Linux, MacOS, Windows, Git, Latex

LANGUAGES

Greek: Native
English: Excellent (C2)
French: Intermediate (B2)