Alexandros Tzikas

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EDUCATION

Stanford University

Department of Aeronautics and Astronautics Ph.D. Candidate

• Member of the Stanford Intelligent Systems Laboratory (SISL), supervised by Prof. M. Kochenderfer

Aristotle University of Thessaloniki

Department of Electrical and Computer Engineering

Five-Year Undergraduate and First-Level Postgraduate Studies including Diploma Thesis

- Summa Cum Laude (GPA 9.50/10)
- Telecommunications and Signal Processing
- Enrolled at the age of sixteen in October 2015.

- GPA 4.144/4.0
- Autonomous Systems and Controls, Optimization and Statistical Methods

Thessaloniki, Greece

Stanford, CA

- Graduated 1st in order of merit in August 2020 (61 students) – Top 1% of Class of 2015 (263 students).
- Diploma Thesis: Color Shift Keying for Visible Light Communications, supervised by Prof. G. Karagiannidis

SHAPE American High School, Supreme Headquarters Allied Powers Europe

Graduate of the Class of 2015

- Summa Cum Laude (GPA 4.071/4.0)
- Promoted early from 8th Grade to 9th Grade.
- EXPERIENCE

AI Labs Intern

July–Sept. 2024

- Developed state estimation algorithms for the valuation of private companies, using convex optimization.
- Worked under the guidance of Prof. Stephen Boyd and Prof. Emmanuel Candès.

Engineering Intern

Sept.-Oct. 2019

- Administrated and serviced the Center's telecommunications network.
- Supported NATO Officers with IT tasks.

PUBLICATIONS

A. E. Tzikas, J. Park, M. J. Kochenderfer, and R. E. Allen, "Distributed Online Planning for Min-Max Problems in Networked Markov Games." IEEE Robotics and Automation Letters, vol. 9, no. 7, pp. 6656-6663, July 2024.

A. E. Tzikas, L. Romao, M. Pilanci, A. Abate, and M. J. Kochenderfer, "Distributed Markov Chain Monte Carlo Sampling based on the Alternating Direction Method of Multipliers." arXiv preprint arXiv:2401.15838, Jan. 2024.

A. E. Tzikas, D. Knowles, G. Gao, and M. J. Kochenderfer, "Multi-robot Navigation using Partially Observable Markov Decision Processes with Belief-based Rewards." AIAA Journal of Aerospace Information Systems, vol. 20, no. 8, pp. 437-446, Aug. 2023.

A. Shetty, A. Dai, A. E. Tzikas, and G. Gao, "Safeguarding Learning-Based Planners under Motion and Sensing Uncertainties using Reachability Analysis." IEEE International Conference on Robotics and Automation, pp. 7872-7878, May 2023.

A. E. Tzikas, P. D. Diamantoulakis, and G. K. Karagiannidis, "Information Theoretic Analysis and Performance Gains of 3-Color Shift Keying." IEEE Communications Letters, vol. 25, no. 5, pp. 1596-1599, May 2021.

A. E. Tzikas, A. Sahinis, S. E. Trevlakis, S. A. Tegos, P. D. Diamantoulakis, and G. K. Karagiannidis, "3-Color Shift Keying for Indoor Visible Light Communications." IEEE Communications Letters, vol. 23, no. 12, pp. 2271-2274, Dec. 2019.

Mons, Belgium

• Graduated two years before nominal graduation year, after Teachers' Council Approval.

NATO Maritime Interdiction Operational Training Center

BlackRock AI Labs Palo Alto, CA

Crete, Greece

ACADEMIC EXPERIENCE

Peer-Reviewer Mar. 2020 – Now • Journal of Artificial Intelligence Research, Learning for Dynamics and Control Conference (L4DC), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), AIAA Journal of Aerospace Information Systems, ACM Journal on Autonomous Transportation Systems, IEEE Communications Letters, Elsevier Optics Communications and Elsevier Physical Communication Sept. 2024 – Now Teaching Assistant, Stanford University Sept. 2024 – Now • Supported the instruction of AA 228 (CS 238): Decision Making under Uncertainty, with over 400 students enrolled. Sept. 2024 – Now • Organized office hours and assisted with course logistics and grading. Research and Teaching Assistant, WCIP Group at AUTh • Engaged in the teaching of the Mobile and Satellite Communications course. Oct. 2020 – Dec. 2020

Performed research in the area of information theory and modulation constellations.
 Analyzed and simulated the Golden Angle modulation schemes.

EXTRACURRICULAR CERTIFICATES

Deep Learning Specialization, by deeplearning.ai on Coursera	Aug. 2019
Game Theory, by Stanford University and the University of British Columbia on Coursera	Mar. 2019
Machine Learning, by Stanford University on Coursera	Oct. 2018

HONORS AND AWARDS

Onassis Foundation Scholarship Recipient	2021
National Greek University Entrance Exams: Ranked 1 st among the 198 competing students.	2015
U.S. President's Award for Educational Excellence	2015
AP Scholar Award	2015
National Honors Society Historian and Member	2013 - 2015
Selected by Association des Clubs Francophones de Football for the elite soccer team of Region Hainaut, Belgium.	2014
18th National Greek Student Competition of Astronomy and Space Science : 5th place among the 96 qualified participating students	2013
School of Astronomy by the Society for Astronomy and Space : Graduated 2nd in order of merit from the 1st grade among 63 students, with an achieved grade of Excellent.	2011

LANGUAGES

• Greek: Native

• English: Proficient

• Spanish: Fluent