Panagiotis Kounatidis

Born 10.20.2000

Contact

Ithaca, NY, USA | +1 (607) 379-0587 | pk586@cornell.edu | Linked-In | Google Scholar

Statement

I have a strong theoretical and practical expertise in optimal stochastic control, reinforcement learning and multi-agent control, which is demonstrated by my achievements in challenging projects in robotics, where I have applied this knowledge.

Education

2024 - Present

PhD in Systems Engineering, Cornell University, Ithaca, NY, USA
GPA: 4.127/4.300
Total Credits: 69
Related Courses (see Transcripts below for all)
- SYSEN 6680 - Optimal Control and Decision Theory, A+
- SYSEN 6690 - Information Design for Strategic Decision-Making, A+
- ECE 7230 - Bayesian Estimation, A+
- ORIE 6510 - (Measure Theoretic) Probability, A-
- ORIE 6780 - Bayesian Statistics & Data Analysis, A

2018 - 2023

Diploma Studies (Integrated BS & MS) in Mechanical Engineering, National Technical University of Athens (NTUA), Athens, Greece
GPA: 8.82/10.00, which ranks in the top 3.57%

2022

Erasmus exchange studies in School of Engineering & Design, Technical University of Munich (TUM), Munich, Germany

2012 - 2018

Saint Joseph Greek-French Private High School, Athens, Greece
Apolytirion grade: 20/20. Scholarship during all years of High School

Work Experience

2024 - Present

Graduate Researcher at the Information & Decision Science Lab at Cornell University, supervised by Prof. Andreas Malikopoulos
I study optimal stochastic control, reinforcement learning and decentralized control and their application to robotics and autonomous vehicles
Highlights:
- I analyzed and implemented a novel framework for optimal control problems with unknown dynamics based on dynamic programming and gradient descent. Paper is accepted for ACC 2026 and the code is published on GitHub
- I implemented a machine learning-based multi-robot navigation framework on real robots. The Paper has been presented at the IEEE CDC 2025 and NERC 2025. Video of experiments
  - Skills: Deep learning, sim-to-real transfer, ROS2, Gazebo, Python
- I implemented a gradient-free stochastic optimization algorithm on simulated linear systems and validated its theoretical robustness properties: Paper is submitted to IEEE Transactions of Automatic Control (TAC).
  - Skills: Stochastic koptimization, MATLAB
- I excel in all the courses I undertake: no grade other than A (see Transcripts below)

- o Skills: Measure-theoretic probability, Bayesian statistics, optimal stochastic control, game theory, mechanism design
- I operate seven [LIMO ROS2 robots](#), which I learned how to do independently in just one month, and have showcased their full range of functionality to prestigious lab visitors, including the Board of Trustees of Cornell
  - o Skills: ROS2, nav2, communication skills
- I co-organize the [DDLC seminars](#)

Fall 2025	**Lead Teaching Assistant (TA) for the course CEE 3040 – Uncertainty Analysis in Engineering**

I prepare teaching material, mostly in Jupyter notebooks, hold lectures, discussions and office hours for the students, help Prof. Ricardo Daziano in organizing the course and coordinating the other two TAs and grader of the course
- Skills: Teaching, leading & organizational skills, Python for data science, Probability

Grader for the course CEE 6080 – Optimal Control and Decision Theory
I grade students' assignments and exams
- Skills: Grading, optimal stochastic control

2022 - 2024	**Graduate Researcher at the [Institute of Automotive Technology](#) at TUM and at the [Vehicles Laboratory](#) at NTUA, supervised by Simon Sagmeister, team lead of [TUM Autonomous Motorsport](#), and Prof. Dimitris V. Koulocheris**

I developed a vehicle model to enable a thorough evaluation of vehicle motion controllers in simulation: [Diploma Thesis](#). I then contributed to an extension of this model, which now runs on the software stack of the TUM Autonomous Motorsport team and is used to evaluate vehicle motion controllers in simulation: [Paper](#), [GitHub](#)
- Skills: Vehicle dynamics & control, ROS2, C++, MATLAB, Python

August 2022	**IT Volunteer at the [2022 European Championships](#), Munich, Germany**

Skills: IT, soft skills

2019 - 2021	**Mechanical Designer & Manufacturer at [Prom Racing](#), the Formula Student (FS) team of NTUA**

I designed and manufactured the aerodynamic structure of the formula race car
- Skills: SolidWorks CAD & FEA, manufacturing & assembly drawings, lathe, CNC

Team achievements:
- Season 2020-2021: 11 different podiums in total, 1st place overall in FS Czech Republic
- Season 2019-2020: 6th place in static events in FS Online 2020

2014 - 2015	**Mechanical Designer & Manufacturer at [X-aile Racing](#), the F1 in Schools team of the Saint Joseph Greek-French Private High School**

I designed and manufactured the race car and received the 1st Award for "Best Mechanically Constructed Car" at the National Finals in 24-26 April 2015 in Thessaloniki, Greece
- Skills: SolidWorks CAD, manufacturing & assembly drawings, 3D printing, CNC

Other Activities

2023-2024	**Organizer of Stammtisch, an event of the [Deutscher Akademischer Austauschdienst](#) (DAAD) in Athens, Greece**

I organized and directed gatherings of Germans with Greeks to promote intercultural connections and foreign language learning once per month

July 2019	**Participated in the Summer Course: Life in Electric Land of the [Board of European Students of Technology](#) (BEST) in Cluj-Napoca, Romania**

Awards

IEEE CDC 2025 Student Travel Award

Foreign Languages

Fluent in English and German. Elementary French

Cornell University

Student Name: Panagiotis Kounatidis   Date printed: 1/23/2026
Student ID: 5630127

----- Beginning of Graduate Record -----

FALL 2024

Program: *Systems Engineering*
Plan: *Systems Major (SYSEN-PHD)*

Course		Description	Earned	Grade
CEE	6690	INFO DESIGN STRATEGIC DECISION	3,00	A+
GRAD	9010	GRADUATE-LEVEL RESEARCH	12,00	NG
SYSEN	6000	FOUNDATIONS OF COMPLEX SYS	3,00	A
SYSEN	6150	MODEL BASED SYSTEMS ENG	3,00	A+
SYSEN	8000	SYS DOCTORAL COLLOQUIUM	1,00	SX
SYSEN	8100	SYSTEMS SEMINAR SERIES - PHD	1,00	A+

Term GPA:	4,210	Term Totals:	23,00
Transfer Term GPA:		Transfer Totals:	0,00
Combined GPA:	4,210	Comb Totals:	23,00
Cum GPA:	4,210	Cum Totals:	23,00
Transfer Cum GPA:		Transfer Totals:	0,00
Combined Cum GPA:	4,210	Comb Totals:	23,00

SPRING 2025

Program: *Systems Engineering*
Plan: *Systems Major (SYSEN-PHD)*
Plan: *Systems Engineering Concentration (SYSTS-CON)*

Course		Description	Earned	Grade
GRAD	9010	GRADUATE-LEVEL RESEARCH	12,00	NG
ORIE	6510	PROBABILITY	4,00	A-
ORIE	6780	BAYESIAN STAT. & DATA ANALYSIS	3,00	A
SYSEN	6680	OPTIM CONTR AND DEC THEORY	3,00	A+
SYSEN	8100	SYSTEMS SEMINAR SERIES - PHD	1,00	A+

Term GPA:	4,000	Term Totals:	23,00
Transfer Term GPA:		Transfer Totals:	0,00
Combined GPA:	4,000	Comb Totals:	23,00
Cum GPA:	4,100	Cum Totals:	46,00
Transfer Cum GPA:		Transfer Totals:	0,00
Combined Cum GPA:	4,100	Comb Totals:	46,00

SUMMER 2025

Program: *Systems Engineering*
Plan: *Systems Major (SYSEN-PHD)*
Plan: *Systems Engineering Concentration (SYSTS-CON)*

Course		Description	Earned	Grade
GRAD	9016	SUMMER GRADUATE-LEVEL RESEARCH	6,00	NG

Term GPA:	0,000	Term Totals:	6,00
Transfer Term GPA:		Transfer Totals:	0,00
Combined GPA:	0,000	Comb Totals:	6,00
Cum GPA:	4,100	Cum Totals:	52,00
Transfer Cum GPA:		Transfer Totals:	0,00
Combined Cum GPA:	4,100	Comb Totals:	52,00

FALL 2025

Program: *Systems Engineering*
Plan: *Systems Major (SYSEN-PHD)*
Plan: *Systems Engineering Concentration (SYSTS-CON)*

Course		Description	Earned	Grade
CS	7796	ROBOTICS SEMINAR	0,00	V
ECE	7230	BAYESIAN ESTIMATION	4,00	A+
GRAD	9010	GRADUATE-LEVEL RESEARCH	12,00	NG
MATH	6110	REAL ANALYSIS	0,00	V
SYSEN	8100	SYSTEMS SEMINAR SERIES - PHD	1,00	A

Term GPA:	4,240	Term Totals:	17,00
Transfer Term GPA:		Transfer Totals:	0,00
Combined GPA:	4,240	Comb Totals:	17,00
Cum GPA:	4,127	Cum Totals:	69,00
Transfer Cum GPA:		Transfer Totals:	0,00
Combined Cum GPA:	4,127	Comb Totals:	69,00

SPRING 2026

Program: *Systems Engineering*
Plan: *Systems Major (SYSEN-PHD)*
Plan: *Systems Engineering Concentration (SYSTS-CON)*

Course		Description	Earned	Grade
GRAD	9010	GRADUATE-LEVEL RESEARCH	0,00	
MATH	6220	APPLIED FUNCTIONAL ANALYSIS	0,00	
SYSEN	8100	SYSTEMS SEMINAR SERIES - PHD	0,00	

Term GPA:	0,000	Term Totals:	0,00
Transfer Term GPA:		Transfer Totals:	0,00
Combined GPA:	0,000	Comb Totals:	0,00
Cum GPA:	4,127	Cum Totals:	69,00
Transfer Cum GPA:		Transfer Totals:	0,00
Combined Cum GPA:	4,127	Comb Totals:	69,00

Graduate Career Totals

Cum GPA:	4,127	Cum Totals:	69,00
Transfer Cum GPA:		Transfer Totals:	0,00
Combined Cum GPA:	4,127	Comb Totals:	69,00

End of Career

---- END OF UNOFFICIAL TRANSCRIPT ----