Ioannis Asmanis

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EDUCATION

University of Pennsylvania   Aug 2022 - *present*
School of Engineering and Applied Sciences, GRASP Lab
PhD Student, Current GPA: 3.97
Research interests: Computer Vision, Neuromorphic Computing, Robotics
Advisor: Prof. Kostas Daniilidis

National Technical University of Athens   Oct 2014 - Jun 2021
School of Electrical and Computer Engineering
Integrated MEng Diploma, Final GPA: 9.1/10 (Excellent)
Specializations: Signals, Robotics & Control, Software, Computer Systems, Mathematics
Thesis: *"Combining semantics with unified geometric representations for indoor SLAM"*, grade 10/10
Supervisor: Prof. Petros Maragos

EXPERIENCE

Hellenic Army Research and Technology Center   Jul 2021 - Jul 2022
Private, Junior Robotics Engineer   *Hellenic Armed Forces, Athens*

Autonomous patrol and surveillance rover and other projects.

- modeling and software development for an autonomous wheeled platform for outdoor environments
- full-stack development of distributed sensing weather platform
- contributed to various vision & micro-controller projects

Intelligent Robotics & Automation Lab (IRAL)   Jan 2021 - Jun 2021
Research Assistant, ATHENA Research Center scholar   *NTUA, Athens*

Healthcare assistive robotics project: "iWalk" robotic walker

- designed & developed DNN models for real-time gesture recognition
- refactored legacy code and managed datasets
- demonstrated the technology in a field test at the Diaplasis Rehabilitation Hospital

European Space Agency (ESA)   Jul 2019 - Jan 2020
Planetary Robotics Laboratory Intern   *ESTEC, Noordwijk, Netherlands*

Robotic vision for autonomous planetary exploration rovers

- FPGA-accelerated prototype Visual Odometry algorithm verification and integration
- tested on rovers in Mars Analogue terrain, interfacing with real mission control software
- contributed a stereo image rectification package and participated in multiple field tests

Computer Science Lab   Oct 2016 - Jun 2017
Teaching Assistant   *NTUA, Athens*

Assisted in the organization and instruction of C/C++ to first-year ECE students.

Technical Skills

Programming Languages	Python, C/C++, Java, Matlab, SQL/MySQL, Verilog, C#, Rust
Frameworks & Tools	PyTorch, NumPy, Jupyter, OpenCV, ROS/ROS2, Rock, PCL, Eigen, Arduino, RaspberryPi, Linux, LaTeX, Office

Awards and Scholarships

Scholarships

Bodossaki Foundation	Partial scholarship for graduate studies	2022 - 2027
ATHENA Research Center	Scholarship for RA at IRAL, NTUA	2021
Google	Associate Android Developer Scholarship	2017
DAAD	Scholarship for MASCOR ROS summer school	2016

University matriculation awards

NTUA	Award for ranking 1st in admissions	2014
Eurobank	*"Great moment for education"* prize	2014
Cosmote	Merit scholarship for academic achievement	2014

Competitions

45th IPhO, Kazakhstan	Honorable mention	2014
National Physics Competition	Finalist (top-15 nationwide)	2012 - 2014
Greek Mathematical Olympiad	Bronze medals	2010, 2011

Volunteering

Conference Reviewer: ICRA 2020, IROS 2021

- **ESA/ESTEC**: Open Day volunteer *Oct 2019*
- **Athens Science Festival**: Science Ambassador & School Guide, Technopolis, *2015 - 2017*

Languages

English: fluent, **German**: intermediate, **Greek**: first language