Georgios Kouros

Robotics Software Engineer

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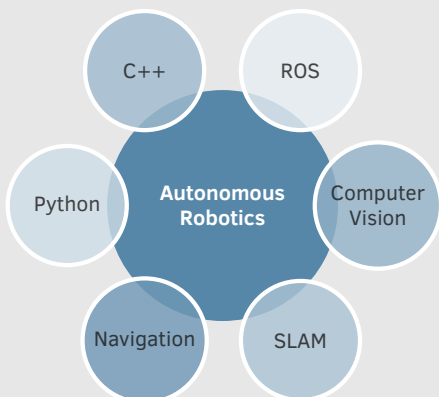- github.com/gkouros
- https://gkouros.github.io/
- Greek

About Me

I am an autonomous robots specialist, experienced in search-and-rescue, utility mapping and industrial robotics. I am always busy pursuing new ways to utilize artificial intelligence and deep learning in order to create trully intelligent robots. Robots that add real value to society.

Languages

🇬🇷 Greek	● ● ● ● ●
🇬🇧 English	● ● ● ● ●
🇩🇪 German	● ○ ○ ○ ○

Expertise

Work Experience

2019 – Now — **Industry 4.0 Consultant** — Kapernikov CVBA
Worked on computer vision based forklift localization, quality testing of industrial products, and industrial operation monitoring. Also, organized a company wide knowledge-sharing workshop on ROS, Visual Odometry and Visual SLAM.

2017 – 2018 — **Research Assistant** — ITI – CERTH
Was responsible for the development of an autonomous robotic system for subsurface utility mapping as part of Project BADGER (EU Horizon 2020). Focused on the development of algorithms for autonomous navigation of a tractor-trailer UGV and autonomous subsurface mapping with a ground penetrating radar.

2014 – 2016 — **Volunteer Robotics Engineer** — Pandora Robotics Team
As a member of a university robotics team, I had the opportunity to work on all the stages of development of an advanced autonomous UGV for search-and-rescue operations (hardware, sensor/actuator drivers, testing, simulation, control, localization, mapping, and navigation).

Education

2010 – 2016 — **Electrical and Computer Engineering Diploma (BSc & MSc)** — Aristotle University of Thessaloniki
Specialization: Electronics and Computers
GPA: 7.84/10

Diploma Thesis (10/10)
Development of an Autonomous Robotic Ground Vehicle with a 4WS4WD Kinematic Model and Implementation of a System for Autonomous Exploration in Unknown Environments

Publications

2018 — **3D Underground Mapping with a Mobile Robot and a GPR Antenna**
G. Kouros, E. Skartados, I. Kostavelis, D. Giakoumis and D. Tzovaras
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Madrid, Spain

2018 — **Surface/subsurface mapping with an integrated rover-GPR system: A simulation approach**
G. Kouros, C. Psarras, I. Kostavelis, D. Giakoumis and D. Tzovaras
2018 IEEE International Conference on Simulation, Modeling, and Programming for Autonomous Robots SIMPAR, Brisbane, Australia.

2017 — **PANDORA Monstertruck: A 4WS4WD car-like robot for autonomous exploration in unknown environments**
G. Kouros, L. Petrou
12th IEEE Conference on Industrial Electronics and Applications (ICIEA), Siem Reap, Cambodia

Awards

2015 — **2nd Best in Class Autonomy** — Pandora Robotics Team
Robocup Rescue 2015 competition in Hefei, China

2015 — **Excellence Award** — Pandora Robotics Team
Awarded by the Aristotle University of Thessaloniki for the Distinction in Robocup Rescue 2015 competition

Technical Skills

• Ubuntu	• Arch	• Git	• Docker	• CI/CD
• OpenCV	• PCL	• Keras	• Tensor	• CVAT
• ROS/2	• Gazebo	• smach	• OMPL	• ACADO
• Matlab	• Blender	• LaTeX	• MS Office	• Jira