

Nikos Koukis

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London - United Kingdom

I am a passionate Robotics/SLAM Engineer based in London. I love writing code and especially when that code comes into life in actual robots and real-life applications.

Professional Experience

05/2019 - Robotics Product Engineer - SLAMcore

01/2019 - 05/2019 Robotics Engineer - SLAMcore

09/2017 - 01/2019 Junior Robotics Engineer - SLAMcore

I work as a robotics product engineer at SLAMcore. We strive to provide robust and accurate SLAM solutions in Robotics. During my time there I have lead the testing and integration of our software on multiple robotic platforms and I have also worked in areas like sensor calibration, autonomous navigation, SLAM algorithms development, continuous integration as well as overall product development and deployment

2017, 2018 Mentor at [Google Summer of Code \(GSoC\)](#) with MRPT

2016 Student at Google Summer of Code (GSoC) with MRPT

Developed an open source implementation of the pose-graphSLAM algorithm with loop closure capabilities ([Project link](#))

Technical Experience

MRPT 2016 Core contributor at [Mobile Robot Programming Toolkit \(MRPT\)](#)

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MRPT is a open source robotics framework specialized in SLAM and mobile robot applications with over 300+ cites in Google Scholar, 40k+ downloads.

I am the author and maintainer of the single and multi-robot implementations of mrpt-graphslam:

- [mrpt-graphslam](#)
- [mrpt_graphslam_2d](#)

Languages

C++ Very experienced using modern C++ (11, 14, 17 standards) and in working with popular mathematical / computer vision and robotics libraries such as OpenCV,

Eigen, MRPT, OpenGV. I have also extensively developed applications in **ROS**, **ROS2** and have used the **Gazebo** and **V-REP** robotic simulators.

Sample projects: **MRPT**, **mrpt_slam**, **robot-concepts**

Python

Expert in using either Python2 or Python3 and with using standard modules such as Numpy, Scipy, Pandas. Good knowledge of module such as argparse, click, pyyaml, mechanize. Decent knowledge of scikit-learn, Tensorflow.

Sample projects: **taskw_gcal_sync**, **awesome_albert_plugins**, **mendeley2calibre**, **Pump3000**

Vim/Vimscript

Implemented the **vim-debugstring plugin** for printf-like debugging in a variety of programming languages.

Rust

I have been experimenting with **Robotics/SLAM-related projects** in the Rust programming language.

Excellent:

Docker/Docker-compose, Make, Bash, Modern CMake, git, Sed/Grep/Awk

Good:

C, Fortran, Matlab

Basic:

Haskell, Awk, Java, Ansible, Django, Grafana

Software:

MRPT, ROS/ROS2, Gazebo, V-REP, Matlab, Fusion360, Solidworks, Grafana

Education

2011 - 2017

5yr Diploma in Mechanical Engineering

National Technical University of Athens (Athens, Greece)

Master Thesis: **Design and Development of Single and Multi-Robot Simultaneous Localization and Mapping (SLAM) Algorithms**

8.4/10.0

2015

ERASMUS Studies

KTH Royal Institute of Technology (Stockholm, Sweden)

I studied for a semester in the department of *Engineering Science* where I undertook projects in advanced control theory, digital control, optimal control, and embedded systems for applications in robotics and aircraft control systems

2013 -

Coursera/Udacity/EdX courses

I have successfully completed more than 10 courses in various MOOC platforms including **Udacity - Artificial Intelligence for Robotics**, **Udacity - Control of Mobile Robots**, **Coursera - Computer Networks**.

Supplementary

- Penetration Testing Enthusiast
- Languages:
 - Greek (native speaker)
 - English
 - German (basic)
 - Spanish (basic)
- **2014:** 4th place in **EBEC** competition final round
- **2004:** Avlonarion chess tournament champion