João Manuel Pereira *March 3, 1995*

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Experience

Ocado Technology   UNITED KINGDOM
Software engineer, Simulation, Advanced Technology   *2021—present*

- Developed Unity-based simulation of robotic picking, predominantly in C#
- Created and improved simulation tools for robotics, mainly in Python
- Set and prioritized tasks based on internal client needs

Institute for Systems and Robotics - IST   PORTUGAL
Research assistant   *2019—2020*

Under a research grant, implemented robotic benchmarks to use in European Robotics League competitions. Additionally, developed software for the european project eurobench, a benchmarking framework for bipedal robots.

agap2 IT   PORTUGAL
Software engineering consultant   *2016—2018*

- Worked with shipping solutions company Transsmart. Implemented connections to several courier APIs to book and track shipments.
- Developed a macOS application for DPD clients.

Education

Instituto Superior Técnico   PORTUGAL
MSc in Computer Science, Major in Intelligent Robotics   *2018—2020*

Final grade: 17/20
Thesis: "Domestic Robot Grasping using Visual Servoing and Deep Learning"
Installed a robotic arm in a domestic mobile robot. Developed an object grasping mechanism using visual servoing and deep learning for visual feedback. Implemented in ROS.

Universidade Nova de Lisboa   PORTUGAL
BSc in Computer Science   *2013—2016*

Skills

- Proficient in written and spoken English
- Good teamwork and technical communication skills
- Solid foundations in computer architecture, algorithms, data structures, databases and distributed systems
- Strong software development skills — comfortable with Python, Javascript, Java, C#, C++
- Experience developing user-facing APIs that are intuitive and well-documented
- Capable of full-stack software development including backend, web, native and mobile app development — with professional experience and several personal projects

Other Projects

Smart Cities Robotics Challenge
Milton Keynes, UK

European Robotics League
2019

Helped to organize, referee, and manage the audience visualization system for the Smart Cities Challenge 2019, a robotics competition at the centre:mk shopping mall in Milton Keynes.

Autonomous driving competition
Portugal

Robotics festival 2019
2019

Developed autonomous car systems, including traffic-sign recognition and obstacle detection and avoidance, to compete in the autonomous driving competition of the Portuguese robotics festival.

MIUP/SWERC 2015
Portugal

College programming contest
2015

Took part in MIUP 2015, a national college programming contest held at Universidade do Porto. Our team qualified for and competed in the Southwest Europe regional contest.

FCT NOVA Hackathon
Portugal

Second place in college hackathon
2015

Participated in the 2015 edition of the college hackathon and placed second. Our team developed a multiplayer Android game, based on an existing traditional board game.