

Igor Lirussi

WORK EXPERIENCE

RESEARCHER - COGNITIVE ROBOTICS

Oct 2021 - Feb 2024



Istanbul (TR) Boğaziçi University: Cognitive Learning and Robotics Laboratory

Enabled industrial and collaborative robots to plan and perform different manipulative actions on objects and assess the results to achieve long-term goals. Particle-simulation physics in VR.

- · Cognitive Robotics
- · Virtual Reality

RESEARCH ASSISTANT - INTERACTION ROBOTICS

Apr 2020 - Sep 2020



Stockholm (SE) KTH Royal Institute of Technology: Robotic Perception and Learning Department Creation of software for natural language interaction with a humanoid robot.

- Human-Robot Interaction
- · Dialog Engines

RESEARCH SCHOLAR - COMPUTER VISION

Sep 2018 - Sep 2019



Lisbon (PT) IST Instituto Superior Técnico: I.S.R. Institute for Systems and Robotics - VisLab Development of software for a mobile robot to navigate indoors and recognize surroundings.

- Object Recognition and Dialog Processing for Human-Robot Interaction
- SLAM and Visual Navigation Systems

EDUCATION

MSc. COMPUTER SCIENCE AND ENGINEERING, University of Bologna Sep 2019 - Dec 2023



Thesis: Novel robotic action synthesis with Conditional Neural Movement Primitives. Machine Learning, Distributed Systems, Languages, Compilers and Computational Models, Information Systems, Concurrent and Distributed Programming, Programming and Development Paradigms, Web Services and Applications, Smart City and Mobile Technologies, Agile, Continuous Integration and Delivery.



INTERNATIONAL STUDENT MSc., Stockholm University

Jan 2020 - Jul 2020

Decision Making and Business Intelligence, Network Security, Cyber Forensics

BSc. COMPUTER SCIENCE AND ENGINEERING, University of Bologna



INTERNATIONAL STUDENT BSc., Lisbon University

Sep 2018 - Sep 2019

Sep 2014 - Sep 2019

Artificial Intelligence, Operational Research



Thesis: Framework for navigation and Human-Robot interaction with humanoid robots.

Software Engineering, Embedded Systems and IoT, Automatic Controls, Mobile App Programming, Operating Systems, Object-Oriented Programming, Network Programming, Telecommunications Networks, Law for Information Technology, Fundamentals of Image Processing,

Databases, Algorithms and Data Structures, Computer Architecture, C Programming

TECHNICAL SKILLS & SOFTWARE

- Mastery of programming paradigms (imperative, OOP, functional, logic, concurrent) and languages (Python, Java, Scala, Bash scripting, C, C++, C#, HTML-CSS, PHP, Javascript, Assembly, Prolog, SQL).
- Advanced knowledge of Digital Image Processing/Image Elaboration/Template Matching and Computer Vision algorithms.
- Proficient understanding of software for automation, robotics internal dynamics of micro-controllers, IoT, embedded systems, and operation of sensors and mechanical actuators.
- Competent knowledge of high-performance and data-intensive computing, Machine Learning, and Bl.
- Advanced skills in video/photo editing programs, video making, GUI and graphics design.

- OpenCV
- ROS
- O PyTorch
- **∜** Unity
- Esp32/Arduino/Raspberry
- LaTeX Writing
- Office Suite
- Adobe Premiere Pro

LANGUAGES & INTERESTS

Basic level

Basic level

SV

TR

IT Native Speaker Winner "The 30 new emerging ideas of 2021" - Startup Day Unibo
EN Full Proficiency Theoretical and Practical course of First Aid for companies

PT Conversational Cooking and DIY Enthusiast

Sport and Videomaking Passionate

Food Aid Program Volunteer - Blood Donor