

# Luca Scimeca, Ph.D. Candidate

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🏡 Robinson College Grange Rd, Cambridge CB3 9AN, United Kingdom

## Employment History

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- 2017 – current     ┣ Ph.D Candidate at Biologically Inspired Robotics Laboratory, University of Cambridge.
- 2017 – 2019       ┣ Demonstrator Demonstrator for the University of Cambridge course "Engineering Tripos Part IIA - 3D Printing", Engineering.  
                  ┣ Demonstrator Demonstrator for the University of Cambridge course "3F8 Inference", Machine Learning.  
                  ┣ Demonstrator Demonstrator for the University of Cambridge course Part IA Lego, Robotics.
- 2016               ┣ Junior Software Engineer at EXTRAORDINARY MANAGED SERVICES LTD, Edinburgh

## Education

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- 2017 – current     ┣ Ph.D. in Engineering (Biologically Inspired Robotics), University of Cambridge, United Kingdom.
- 2013 – 2017       ┣ BEng (Hons) in Software Engineering and Artificial Intelligence, University of Edinburgh, United Kingdom.  
First Class Honours (summa cum laude) - 4.0 GPA, Department prize and Howe Prize for highest cumulative GPA of graduating class

## Research Publications

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### Journal Articles

- 1 Hughes, J., Scimeca, L., Ifrim, I., Maiolino, P., & Iida, F. (2018). Achieving robotically peeled lettuce. *IEEE Robotics and Automation Letters*, 3(4), 4337–4342.
- 2 Stone, T., Webb, B., Adden, A., Weddig, N. B., Honkanen, A., Templin, R., ... Heinze, S. (2017). An anatomically constrained model for path integration in the bee brain. *Current Biology*, 27(20), 3069–3085.
- 3 Hughes, J., Gilday, K., Scimeca, L., & Iida, F. (forthcoming). Flexible, adaptive industrial assembly: driving innovation through competition. *IEEE Robotics and Automation Letters*.
- 4 Scimeca, L., Hughes, J., Maiolino, P., & Iida, F. (forthcoming). Model-free soft-structure reconstruction for proprioception using tactile arrays. *IEEE Robotics and Automation Letters*.

### Conference Proceedings

- 1 Scimeca, L., Maiolino, P., & Iida, F. (2018). Soft morphological processing of tactile stimuli for autonomous category formation. In *2018 ieee international conference on soft robotics (robosoft)* (pp. 356–361). IEEE.
- 2 Scimeca, L., Maiolino, P., Cardin-Catalan, D., P. del Pobil, A., & Iida, F. (forthcoming). Non-destructive robotic assessment of mango ripeness via multi-point soft haptics. In *Icra*.

## Skills

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- Languages    █ English (fluent), Italian (native)
- Coding        █ Python, C++, C, Java, MATLAB, Haskell, Assembly, SQL, XML/XSL
- Misc.         █ TensorFlow, ROS, V-Rep, CAD, 3D-Printing

## Miscellaneous

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### Academic Services

- 2018        █ **Workshop Co-organizer** Agri-Food Robotics, Cambridge, UK (2018)
- 2017 – current    █ **Reviewer** for IEEE Robotics and Automation Letters.

### Awards and Achievements

- 2018        █ **AJS Special Award** for Industrial Manipulation Challenge, World Robotics Summit 2018, Tokyo, Japan.
- █ **1st Place Award** Robot Rescue Simulation League, RoboCup 2018, Montreal, Canada.
- █ **1st Place Award** at "RoboSoft Competition - Manipulation", RoboSoft 2018 IEEE Conference on Soft Robotics, Livorno, Italy.
- 2017        █ **Howe Undergraduate Prize**, The University of Edinburgh, United Kingdom. Best performance in Artificial Intelligence of the graduating class.
- █ **BEng AI & SE class Prize**, The University of Edinburgh, United Kingdom. Highest cumulative grade of the graduating class.
- 2016        █ **Winner of Robotic 2-a-side Football Tournament** (System Design Project), The University of Edinburgh, United Kingdom.
- 2015        █ **Edinburgh Award** University of Edinburgh, United Kingdom..
- 2014        █ **Hackathon Winner**, The Smart Data Hack, Edinburgh, United Kingdom.
- 2013, 2010, 2009    █ **Scholarship "Borsa di Studio Benivegna"**, three times winner. Highest final cumulative grade achieved in current year of "Vittorio Emanuele III", Palermo, Italy.
- 2013        █ **Informatics Diploma**, graduated with a score of 100 in "Esami di Stato", Palermo, Italy.
- 2010        █ **Scholarship "Premio di studi prof. Erasmo Siino"** Highest final grade achieved among all students in the town of Capaci, Palermo, Italy.

### Other Projects

- 2017        █ **RoboAnt Research Project**, Edinburgh, United Kingdom. Implemented path integration network based on insect brain (mobile-powered, bio-inspired robotics).
- 2016        █ **CIFAR Image Classification with Deep Neural Networks**, Edinburgh, United Kingdom. Achieved state of the art performance on CIFAR-10 and CIFAR 100 dataset; Devised new Multitask Learning procedures.
- █ **Robot-Football**, Edinburgh, United Kingdom. Built autonomous robot for two-a-side football game, including: autonomous path planner, image tracking and recognition, physical design and implementation.

## Miscellaneous (continued)

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2015

- **Bidirectional Transformations**, Edinburgh, United Kingdom.  
Researched in the area of Bidirectional Transformations; implemented Object Oriented prototype in Java.
- **Carneades Argumentation System**  
Developed a python implementation of the Carneades System of argument evaluation (Artificial Intelligence).

## References

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**Dr Fumiya Iida**  
Cambridge University,  
 [fi224@eng.cam.ac.uk](mailto:fi224@eng.cam.ac.uk)

**Prof Perla Maiolino**  
Oxford University,  
 [perla.maiolino@eng.ox.ac.uk](mailto:perla.maiolino@eng.ox.ac.uk)