Luca Scimeca, Ph.D. Candidate

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Employment History

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

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

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

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

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** at 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)

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

Dr Fumiya Iida
Cambridge University,
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Prof Perla Maiolino
Oxford University,
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