

# Luca SCIMECA

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## EDUCATION

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2017-Current	PhD in ENGINEERING, University of Cambridge, Cambridgeshire, UK
2013-2017	BEng Hons in SOFTWARE ENGINEERING AND ARTIFICIAL INTELLIGENCE, University of Edinburgh, Edinburgh, UK FIRST CLASS (SUMMA CUM LAUDE) - 4.0 GPA

## RESEARCH AND PROJECTS

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2016-2017	<b>RoboAnt Research</b> <i>University of Edinburgh</i> <ul style="list-style-type: none"><li>Researched in the mobile-powered robotics area under the supervision of a professor at UoE.</li><li>Implemented mobile-phone powered autonomous robot based on insect brain.</li><li>Devised new algorithms/implemented Ant Navigational Toolkit (Path Integration, Visual Homing, Search)</li></ul>
2016-2017	<b>Image Classification With DNN</b> <ul style="list-style-type: none"><li>Experimented on CIFAR-10 and CIFAR-100 with Tensor Flow Convolutional Neural Networks (CNNs).</li><li>Focused on Multitask Learning, devising new learning rules for the procedure and adopting them to increase default performance.</li></ul>
2016	<b>Hand-written digit classification with DNN</b> <ul style="list-style-type: none"><li>Experimented with Adaptive Learning Rules, Batch Normalization, Convolutional Neural Networks.</li><li>Increased CNN forward and backward propagation speed of common algorithms by 2x (Python, no GPU).</li><li>Achieved near state of the art performance on MNIST dataset.</li></ul>
2015-2016	<b>System Design Project</b> <i>University of Edinburgh</i> <ul style="list-style-type: none"><li>Built a robotic prototype for two-a-side football competition.</li><li>Implemented general machine learning algorithms, image processing and remote autonomous planning.</li><li>Prototype built using Arduino board and various electrical and mechanical components.</li></ul>
2015	<b>Undergraduate Research Practical</b> <i>University of Edinburgh</i> <ul style="list-style-type: none"><li>Researched along a professor at UoE in the area of Bidirectional Transformations.</li><li>Explored OO implementations of the concepts and implemented models of Bx behavior in Java.</li></ul>
2015	<b>Research on the Carneades Argumentation System</b> <i>University of Edinburgh</i> <ul style="list-style-type: none"><li>Developed a python version of the Carneades system of argument evaluation.</li></ul>

## WORK EXPERIENCE

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<i>Aug 2016</i> <i>May 2016</i>	<p><b>Software Engineer at EXTRAORDINARY MANAGED SERVICES LTD, Edinburgh</b></p> <ul style="list-style-type: none"><li>• Front and back end experience through development of large software for in-house use.</li><li>• Member of SCRUM team.</li><li>• Administration of a large and complex network (ISP level).</li><li>• Deployment of new networking infrastructure.</li></ul>
<i>May 2017</i> <i>Sept 2014</i>	<p><b>Resident Assistant at CHANCELLOR'S COURT, Edinburgh</b> <i>University of Edinburgh (UoE)</i></p> <ul style="list-style-type: none"><li>• Managed multiple floors of a university residence with ethnically different people.</li><li>• Counseled students on different personal and academic issues.</li><li>• Developed communication, creativity, leadership, event planning, community building, time management and analytical skills.</li></ul>

## HONORS AND AWARDS

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<i>2017</i>	<p><b>Howe Undergraduate Prize, at The University of Edinburgh</b></p> <ul style="list-style-type: none"><li>• Best performance in Artificial Intelligence by a final-year student.</li></ul>
<i>2017</i>	<p><b>BEng in Artificial Intelligence &amp; Software Engineering class prize, at The University of Edinburgh</b></p> <ul style="list-style-type: none"><li>• Best performance in Artificial Intelligence &amp; Software Engineering by a final-year student.</li></ul>
<i>2016</i>	<p><b>Winner of robotic 2-a-side Football tournament (System Design Project), at The University of Edinburgh</b></p>
<i>2015</i>	<p><b>Winner of the Edinburgh Award at University of Edinburgh</b></p>
<i>2014</i>	<p><b>Winner of The Smart Data Hack (hackathon) at The University of Edinburgh</b></p>
<i>2009-2013</i>	<p><b>Three times winner of scholarship "Borsa di Studio Benivegna".</b></p> <ul style="list-style-type: none"><li>• Highest final cumulative grade achieved in current year of "Vittorio Emanuele III".</li></ul>
<i>2013</i>	<p><b>Informatics Diploma - Graduated with a score of 100 in "Esami di Stato".</b></p>
<i>2010</i>	<p><b>Winner of "Premio di studi prof. Erasmo Siino" II Edition</b></p> <ul style="list-style-type: none"><li>• Highest final grade achieved among all students in the town of Capaci.</li></ul>

## INTERESTS AND ACTIVITIES

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Interests: Robotics, AI, Machine Learning, Vision, Technology, Open-Source, Coding Competitions, Outdoors, Traveling.

Member of Edinburgh University Young Researchers Association (EUYRA).

Martial Artist and Judo black belt: competed at National, European and International level (2003-2014).