



## Mathilde Legrand

Born Paris, May 14<sup>th</sup>, 1992

Nationality : French

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### PhD student in medical robotics

#### Education

|           |  |
|-----------|--|
| 2015-2017 | <b>Ecole Polytechnique Fédérale de Lausanne</b> , Master of Science in Bioengineering. Specialization in Biomechanical engineering. Graduated in Sept. 2017.   |
| 2011-2014 | <b>Ecole Polytechnique</b> , one of France's leading universities for high-level scientific training. Grade of Master awarded in September 2014.   |
| 2009-2011 | <b>Lycée Sainte-Geneviève</b> , Versailles<br>Two-year intensive program in Advanced Mathematics and Physics in preparation for the nationwide competitive examination to enter the French <i>Grandes Ecoles</i> for scientific studies. |

#### Work experiences

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|----------------------|--|
| Oct. 2017 - ...      | <b>ISIR, Université Pierre et Marie Curie, Paris, France</b><br>PhD : <i>Intuitive and natural control for upper-limb prosthetics</i>  |
| March-August 2017    | <b>ISIR, Université Pierre et Marie Curie, Paris, France</b><br>Master thesis : <i>Movement-based control approaches for upper-limb prosthetics : a comparison of interjoint coordination models</i>                                     |
| Sept.2016-Jan.2017   | <b>LSRO, EPFL, Lausanne, Switzerland</b><br>Project : <i>Closed loop position control with FES for stroke patients.</i>  |
| July-Sept. 2016      | <b>Instent, Palaiseau, France</b><br>Internship : development of a sensor for blood clot analysis.   |
| March-June 2016      | <b>Laboratoire d'Automatique, EPFL, Lausanne</b><br>Semester project : <i>Six degrees of Freedom biomechanical model of the shoulder joint.</i>  |
| Oct.2014-August 2015 | <b>« Jeunes à l'Etranger », Youth abroad</b> , international volunteer work, Chad.<br>- Education : helped teenagers at school and gave reading and writing classes to adults<br>- Project management : fundraising to build a school    |
| Sept. 2014           | <b>Direction Départementale des Territoires de la Savoie, French administration</b><br>Examination of the aid application form for Common Agricultural Policy.   |
| Apr.-July 2014       | <b>School of Engineering and Medical Sciences, Queen Mary University, London, UK</b><br>Research internship : <i>Investigation of load transfer from fascicles to fibrils in tendons with different functions</i>                        |
| Sept.-Dec. 2013      | <b>Institute for Research in Computer Science and Control, Palaiseau, France</b><br>Research project : <i>Calibration of a mechanical model of the heart</i>   |
| Summer 2013          | <b>Airbus Military, Sevilla, Spain</b><br>Internship : maintenance of military aircrafts and work in a team of production.   |
| Oct. 2011-April 2012 | <b>Apprentis d'Auteuil</b> , care institution for minors. Internship as part of the school curriculum<br>- helped troubled teenagers by giving them classes.<br>- worked in groups with teachers and youth workers sharing in their job. |
| Summer 2011          | <b>Father Ceyrac children's trust</b> , charity work, India (five weeks).  |

#### Skills

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|------------------|---|
| <b>Languages</b> | French (mother tongue); English (fluent), TOEFL; Spanish (intermediate) |
| <b>Knowledge</b> | Matlab, Finite elements method (Abaqus), COMSOL                         |

#### Extra Curricular Activities

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|------------------------|--|
| <b>Music and sport</b> | flute (sixteen years), harp (fourteen years), member of an orchestra.<br>basketball at regional and national level.  |
| <b>Association</b>     | scouting movement, scout leader for girls aged eight to eleven.<br>Board member of ELSE, a local, ethic and fair grocery managed by students.<br>Organization of lectures given by famous people working in French cinema. |