

# CURRICULUM VITAE – ZITA MARINHO

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## CONTACT

**office:** Institute for Systems and Robotics,  
Instituto Superior Técnico, 7.21,  
North Tower, Av. Rovisco Pais,  
1900-001 Lisbon, Portugal  
**tel:** (+351) 919 491 255  
**email:** [zitamarinho@gmail.com](mailto:zitamarinho@gmail.com)  
**url:** <http://www.cs.cmu.edu/~zmarinho>

## EDUCATION

**Carnegie Mellon University** PhD, Robotics Institute, Institute for Robotics and Systems, Carnegie Mellon University / Instituto Superior Técnico (2012-2018). Thesis advisors: Siddhartha Srinivasa (University of Washington), Geoffrey J. Gordon (CMU) and André F. T. Martins (Unbabel/ Instituto de Telecomunicações). Thesis dissertation: Kernel and Moment-based methods for Prediction and Planning with applications in Robotics and Natural Language Processing.

**Carnegie Mellon University** MSc. in Robotics, Robotics Institute at CMU, Pittsburgh, USA (2012-2015).

**Instituto Superior Técnico** MEng. in Physics, Lisbon, Portugal, graduated with an average of [18/20] (2008-2010)

**École Polytechnique Fédérale de Lausanne** Exchange student in the Erasmus Program, Switzerland (2009).

**Instituto Superior Técnico** BSc in Physics, Lisbon, Portugal, graduated with an average of [17/20] (2005-2008).

## EXPERIENCE

**Sacoor Brothers** Data Scientist Researcher at Sacoor Brothers, leading data science projects and collaborations with Universities. Main projects: recommender systems, churn prediction models, time-series prediction, Lisbon, Portugal (2018-current).

**European Space Agency** Intern at the European Space Operations Center (ESOC-ESA). Working in the Advanced Mission Concepts Team, developing a robotic mock-up rover to interface with the International Space Station, Darmstadt, Germany (2011-2012).

**University of Tokyo** Research intern at the School of Engineering in the Yuichiro Kato's laboratory, under the IAESTE program, Tokyo, Japan (2010).

**Institute for Systems and Robotics** Research intern at ISR, Instituto Superior Técnico, in the Soccer Robots team with Pedro Lima. Developing a multi-target tracking algorithm for cooperative robots, Lisbon, Portugal (2010).

## PUBLICATIONS

- Z. Marinho, A. Hefny, W. Sun, G. J. Gordon, S. Srinivasa, "*Recurrent Predictive State Policy Networks*", Proceedings of the International Conference of Machine Learning (ICML), Stockholm, Sweden (2018).
- A. Hefny, C. Downey, Z. Marinho, W. Sun, S. Srinivasa, G. J. Gordon, "*Predictive State Models for Prediction and Control in Partially Observable Environments*", Conference on Robot Learning, Mountain View California, USA (2017).
- G. Lee, Z. Marinho, A. Johnson, M. Mason, G. J. Gordon, S. Srinivasa, "*Unsupervised Learning for Nonlinear Piecewise Smooth Hybrid Systems*", ArXiv preprint (2016).

- Z. Marinho, S. B. Cohen, A. F. T. Martins, N. A. Smith, "*Semi-Supervised Sequence Labeling via Method of Moments*", in Proceedings of Empirical Methods in Natural Language Processing Conference. Austin, Texas, USA (2016) (invited talk).
- Z. Marinho, B. Boots, A. Dragan, A. Byravan, G. J. Gordon, S. Srinivasa, "*Functional Gradient Motion Planning in Reproducing Kernel Hilbert Spaces*", Proceedings of Robotics: Science and Systems (RSS), Ann Harbor Michigan, USA (2016).
- Z. Marinho, S. Cardoso, R. Chaves, R. Ferreira, L. V. Melo, and P. P. Freitas, "*Three dimensional magnetic flux concentrators with improved efficiency for magnetoresistive sensors*", J. Appl. Phys. 109, 07E521 (2011).
- Z. Marinho, "*Kernel and Moment-based Prediction and Planning. Applications to Robotics and Natural Language Processing, PhD dissertation*", Carnegie Mellon University.(2018)

## TEACHING

- Math Fundamental for Robotics** Graduate course at Carnegie Mellon University, Teaching assistant, Robotics Institute [16-811], (Fall 2015).
- Algebra** private tutoring, (2014).
- Calculus** private tutoring, (2016).

## TALKS

- Reinforcement Learning session** ICML, Stockholm Sweden, (2018).
- DataScience Meetup** Intro to Reinforcement Learning, Lisbon (2017).
- Empirical Methods for Natural Language Processing** invited talk, Austin, Texas, USA, (2016).
- Women in Machine Learning Workshop** NIPS Barcelona, Spain, (2016).
- Ciência 2016** "*Motion planning in RKHSs*", Lisbon, Portugal.
- Conference on Robotics Science and Systems (RSS)** , Michigan, USA (2016).
- Workshop on Autonomously Learning Robots** , NIPS Montreal, Canada (2014).
- LarSys Annual meeting** Lisbon, Portugal (2014, 2015, 2016).
- Ciência** Anual national scientific meeting, Lisbon, Portugal (2016, 2017).
- Priberam Machine Learning Seminars** , Lisbon, Portugal (2013, 2016, 2018).
- Conference on Magnetism and Magnetic Materials** Atlanta, USA, (2010).
- Trends in Nanotechnology (TNT)** , Iberian Nanotechnology Laboratory, Braga, (2010).

## ACTIVITIES

- DSSG Data Science for Social Good** Co-organizer in the Data Science for Social Good Europe project, Lisbon, Portugal (2017).
- LxMLS Lisbon Machine Learning Summer School** Lab monitor in the 3rd-6th editions of the Summer School, Lisbon, Portugal (2012-2017).
- Human Spaceflight and Exploration** - course about space exploration, life support systems, and microgravity research Swedish Institute of Space Physics and Umea University, Kiruna, Sweden, (2010).
- School of Astrophysics and Gravitation** Lisbon, Portugal, (2006,2008).
- Quantum Information and Computation course** Lisbon, Portugal (2007).
- Piezoelectric Materials** BEST Summer School, Danish Technical University. (2007) Copenhagen, Denmark (2007).

**Student Space Exploration and Technology Initiative** , collaborator of the control and attitude team for the ESEO satellite, Lisbon, Portugal (2008-2009).

#### AWARDS

**FCT PhD fellowship** CMU/Portugal PhD Fellowship (2012-2017).

**FCT/ADI joint fellowship** Portuguese Science Foundation/Innovation Agency (2011).

**Best Student Award** "*Best Students UTL*" Santander award, (2010).

**Calouste Gulbenkian Foundation** Bachelor fellowship (2005-2008).

#### SKILLS

**Programming Languages** - C, C++, Python, Java, Matlab

**Software** OpenRAVE, Git, PyBOX, OpenCV, Theano, TensorFlow

#### LANGUAGES

**Portuguese** (Native), **English** (Proficient), **Spanish** (Good), **French** (Basic).

#### INTERESTS

**Karate** *Shotokan Karate Association* (2014-2018), Lisbon

**Classical Dance** Amateur dancer at *Arte Total* (1991-2005), Braga

**Other:** I also enjoy reading and running.