

Francisco Penedo Álvarez

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1 Contact Information

- Email: contact@franpenedo.com
- Website: <https://franpenedo.com>

2 Education

- 2014-2020 **PhD**, BU Robotics Lab, Division of Systems Engineering, College of Engineering, Boston University, **Advisor: Prof PhD Calin Belta**, *Systems Engineering*. Thesis: *Formal Methods for Partial Differential Equations*
- 2009-2014 **Bachelor**, Polytechnic School, Autonomous University of Madrid, *Computer Science*
- 2009-2014 **Bachelor**, College of Science, Autonomous University of Madrid, *Mathematics*

3 Fellowships and Awards

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|--------------------------|---|
| BU Dean's Fellow | 2014-2015, from the Division of Systems Engineering, College of Engineering, Boston University. |
| Best Poster | 2011, in the XXXII Control Engineering Days in Sevilla. Awarded best poster of the Intelligent Control Thematic Group from the Control Engineering Spanish Committee (CEA). |
| Introduction to Research | 2010-2014, from the Spanish National Research Council (CSIC). |

Excellence Schollarship	2010-2013, from the Community of Madrid. Awarded to the best undergraduate students (approximately those on the 1%) in any university of the Community of Madrid. This award is exclusively based on academic performance during the previous academic year.
Graduated with Honours in High School	2009, from the IES n ^o 1 of O Carballiño.

4 Publications

- Penedo, F., H. Park, and C. Belta. “Control Synthesis for Partial Differential Equations from Spatio-Temporal Specifications.” In 2018 IEEE Conference on Decision and Control (CDC), 4890–95, 2018. <https://doi.org/10.1109/CDC.2018.8619313>.
- Bombara, Giuseppe, Cristian-Ioan Vasile, Francisco Penedo, Hirotohi Yasuoka, and Calin Belta. “A Decision Tree Approach to Data Classification Using Signal Temporal Logic.” In Proceedings of the 19th International Conference on Hybrid Systems: Computation and Control, 1–10. HSCC '16. New York, NY, USA: ACM, 2016. <https://doi.org/10.1145/2883817.2883843>.
- Penedo, Francisco, Cristian-Ioan Vasile, and Calin Belta. “Language-Guided Sampling-Based Planning Using Temporal Relaxation.” In International Workshop on the Algorithmic Foundations of Robotics, 2016.
- Penedo, Francisco, Rodolfo E. Haber, Agustín Gajate, and Raúl M. del Toro. “Hybrid Incremental Modeling Based on Least Squares and Fuzzy K-NN for Monitoring Tool Wear in Turning Processes.” IEEE Transactions on Industrial Informatics 8, no. 4 (November 2012): 811–18. <https://doi.org/10.1109/TII.2012.2205699>.

5 Talks

2 June 2011 "Hybrid incremental modeling based on least squares and fuzzy K-NN. Design and evaluation" at VII CEA Symposium of Intelligent Control in Logroño, Spain.

6 Research Experience

- 2015-2020 **Research Assistant**, BU Robotics Lab, Division of Systems Engineering, College of Engineering, Boston University.
- 2013-2014 **Research Assistant**, C4LIFE group, Control Engineering and Robotics Center (CAR), Spanish National Research Council (CSIC).
- 2011-2013 **Introduction to Research Fellow**, C4LIFE group, Control Engineering and Robotics Center (CAR), Spanish National Research Council (CSIC).

7 Teaching

- 2016 **Teaching Assistant**, Boston University, *Introduction to Computer Aided Design (CAD) & Machine Components (ME359)*
- 2015 **Teaching Assistant**, Boston University, *Introduction to Linear Algebra for Engineers (EK102 B1)*

8 Skills

8.1 Languages

- English Fluent in spoken and written English.
- Spanish Native language.
- Galician Native language.
- Japanese Basic knowledge.

8.2 Computer Skills

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| Programming languages (proficient) | Python, Java, C |
| Programming languages (some skill) | Haskell, Lisp, JavaScript, Bash, VHDL, HTML, CSS |
| Databases | PostgreSQL, SQLite |
| Frameworks | numpy, scipy, matplotlib, scikit-learn, pandas |