

CV Jonathan Ferrer Mestres

Date of Birth: January 21, 1988

Residence: 024/70 Hope Street St 4101, Brisbane, QLD, Australia | Nationality: Spanish

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EDUCATION

October 2013 - May 2018, **Phd in Artificial Intelligence**, Artificial Intelligence and Machine Learning Group, Universitat Pompeu Fabra, Barcelona, Spain | www.upf.edu

Purpose: My research topic is focused on Combined Task and Motion Planning as Classical AI Planning.

Thesis: Combined Task and Motion Planning as Classical AI Planning.

Reference: Dr. Hector Geffner, Universitat Pompeu Fabra and ICREA.

Role: PhD Supervisor.

Contact: hector.geffner@upf.edu | <http://www.tecn.upf.es/~hgeffner/>

September 2012 - June 2013, **Msc Intelligent Interactive Systems**, Artificial Intelligence and Machine Learning Group, Universitat Pompeu Fabra, Barcelona, Spain | www.upf.edu

Purpose: This Master's degree focus on the design, principles, and use of agents that can perceive, act, learn, plan, and communicate in the environment.

Master thesis: Mestres, J. F. (2013). *Integrating a Planner Under a Platform Independent Software Architecture for Path-Planning in Mobile Robotics*.

Reference: Dr. Vladimir Estivill-Castro, Griffith University and Pompeu Fabra University.

Role: Master Supervisor.

Contact: v.estivill-castro@griffith.edu.au | <http://www.ict.griffith.edu.au/~vlad/>

September 2007 - September 2012, **Bachelor Computer Science**, Information and Communication Technologies School, Universitat Pompeu Fabra, Barcelona, Spain | www.upf.edu

ADDITIONAL TRAINING

2016 (3 intensive days), **Summer School** at International Conference on Automated Planning and Scheduling, London, UK.

2013 (intensive day), **Introduction to ROS**, at International Conference in Advanced Robotics, Montevideo, Uruguay.

January 2013 - March 2013, **Control of Mobile Robotics**, Online at Georgia Institute of Technology.

January 2011 - March 2011, **Introduction to Artificial intelligence** Online at Stanford University.

September 2009 - September 2010, **PHP and MYSQL**, Universidad de Àvila, Spain.

WORK EXPERIENCE

April 2019 - Present, **Postdoctoral Research Scientist**, Conservation Decisions Team, Land and Water, CSIRO, Brisbane, QLD, Australia | www.csiro.au

- Building trusted and explainable artificial intelligence for environmental decisions.
- Research tasks.
- Software engineering and development.

July 2018 - March 2019, **Postdoctoral Research Scientist**, School of Information and Electrical Engineering, University of Queensland, Brisbane, QLD, Australia | www.uq.edu.au

- Working on Robust Manipulation Planning for Woodside Energy and NASA.
- Research tasks.
- Software engineering and development.

September 2013 - September 2017, **Professor and Researcher**, Artificial Intelligence and Machine Learning Group, Universitat Pompeu Fabra, Barcelona, Spain | www.upf.edu

- **Teaching:** Intelligent Computing and Natural Language, Robotics, Mathematics for Engineers, Computer Architectures, Digital Logic.
- Research tasks.
- Software engineering and development.

September 2012 - September 2013, **Research Assistant**, Artificial Intelligence and Machine Learning Group, Universitat Pompeu Fabra, Barcelona, Spain | www.upf.edu

- Research assistance in the Artificial Intelligence Group.
- Software engineering and development.

September 2011 - September 2012, **Assistant at Spacebook Project**, Artificial Intelligence and Machine Learning Group, Universitat Pompeu Fabra, Barcelona, Spain | www.upf.edu

- This is an European project for a speech-driven, hands-free, eyes-free device for pedestrian navigation and exploration. www.spacebook-project.eu
- Software engineering development.

April 2011 - June 2011, **Analysis and Software Developing**, IT Department

Giesecke & Devrient, Barcelona, Spain | <https://www.gi-de.com>

- Software engineering and software analysis.

September 2010 - September 2012, **Moodle Course Developer**, Department of Economics Universitat Pompeu Fabra, Barcelona, Spain | www.upf.edu

- Study, analysis and development of the Moodle platform to control student Practicums for the new European degrees.

SKILLS

Tools: ROS, Gazebo, Morse, OpenRave, Moveit, Ubuntu, Ubuntu console, Android, IDEs.

Technical: C, C++, Java, Python, SQL, HTML/CSS, PHP, Git, Bash scripts, algorithm design and development, search algorithms, planning, machine learning, natural language, motion planning, robotics, kinematics, dynamics. Self-learning. Oral and written skills.

Spoken Languages: Spanish, Catalan and English.

PUBLICATIONS

Ferrer-Mestres, J., and Geffner, H. (2018). General Algorithms for Combined Task and Motion Planning. To be submitted.

Ferrer-Mestres, J., Francès, G., and Geffner, H. (2017). Combined Task and Motion Planning as Classical AI Planning. 2017. arXiv preprint arXiv:1706.06927

SEGOVIA-AGUAS, J., FERRER-MESTRES, J., & JONSSON, A. Planning with Partially Specified Behaviors. In CCIA 2016

Ferrer-Mestres, J., Francès, G., and Geffner, H. (2015). Planning with State Constraints and its Application to Combined Task and Motion Planning. In PlanRob - Workshop on Planning and Robotics, 25th International Conference on Automated Planning and Scheduling (ICAPS 2015)

V. Estivill-Castro, J. Ferrer-Mestres (2013). Path-finding for mobile robots in dynamic environments with PDDL-planners. 16th International Conference on Advanced Robotics, (ICAR 2013). Montevideo, Uruguay, November 25-29th, 2013

EXTRACURRICULAR ACTIVITIES

2017, Awarded for the Panther Project <http://panther.meil.pw.edu.pl/>

2016, Qualified for the final round of the Google Hash Code programming contest, Paris, France.

2014, Second place in the Drop-in challenge of Robocup 2014, João Pessoa, Brazil.

2013, Participation in the Robocup 2013, Eindhoven, Netherlands.

I have been involved in activities to promote science in young people during 2013 and 2014 (Escolab) and Girls Hack days in 2016. I taught several robotic courses to kids during 2016 and 2017. I took part in the Robocup competition during 2013 and 2014.

HOBBIES

Diving, hiking, dancing, programming, reading, water activities (kayak, snorkel, surf, ...)

REFEREES

- Dr. Hector Geffner, Universitat Pompeu Fabra and ICREA.
Contact: hector.geffner@upf.edu | <http://www.tecn.upf.es/~hgeffner/>
- Dr. Vladimir Estivill-Castro
Contact: v.estivill-castro@griffith.edu.au | <http://www.ict.griffith.edu.au/~vlad/>