Fernando Valladares Monteiro

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Education

Ph. D. in Electrical Engineering - GPA: 3.84 — Expected Summer 2022
University of Southern California (USC), USA
Advisor : Petros Ioannou

M. Sc. in Advanced Systems and Robotics (dual program with ENSTA) — August 2013
Université Pierre et Marie Curie (UPMC), France

M. Eng. / Diplôme d'Ingénieur (dual program with UFRJ) — August 2013
École Nationale Supérieure de Techniques Avancées (ENSTA), France

B. Eng. in Control and Automation Engineering — August 2014
Federal University of Rio de Janeiro (UFRJ), Brazil

Academic Experience

Research Assistant: USC's Center For Advanced Transportation Technology — Jan 2018 - present

Studying safe and efficient cooperative lane change maneuvers in an environment with autonomous connected vehicles. Publication: *Fernando V. Monteiro and Petros Ioannou, "Safe Lane Change and Merging Gaps in Connected Environments", IFAC Control in Transportation Systems, Jun 2021*

Developed and compared multiple on-street parking prediction algorithms. Publication: *Fernando V. Monteiro and Petros Ioannou, "On-Street Parking Prediction Using Real-Time Data", 21st IEEE International Conference on Intelligent Transportation Systems, Nov 2018*

Teaching Assistant: USC's Department of Electrical and Computer Engineering — Aug 2017 - present

Prepared and taught discussion sessions, helped create homework and solutions, and graded projects for the courses: *Machine Learning from Signals: Foundations and Methods* & *Mathematical Pattern Recognition*

Professional Experience

System Analyst: Rust Consultoria em Engenharia, Brazil — Mar 2014 - Feb 2015

Combater Project: Customized and tested French constructive battle simulation software to comply with Brazilian's army needs and requirements

Engineering Research Intern: Renault S.A.S., France — Apr 2013 - Aug 2013

Developed a multisensor data fusion algorithm for determination of maximum road speed. Patent: *EP-3105752-A1: Method for determining a speed limit in force on a road taken by a motor vehicle*

Research Intern: Université du Sud Toulon-Var, France — May 2012 - Jul 2012

Movement capture: estimated step frequency, from which the person's moving speed is evaluated, using data provided by a triaxial accelerometer attached to the wrist.

Technical Skills

- **Coding and software**: *MATLAB* - expert *Simulink* - expert *Python* - advanced *C++* - advanced *Java* - intermediate *MySQL* - coursework *Labview* - coursework
- **Languages**: *Portuguese* - native *English* - fluent *French* - fluent *Spanish* - conversational

Awards and Interests

Jenny Wang Excellence in Teaching Award: awarded by USC's School of Engineering — Spring 2021
Side Project: Organizer of Race On, an autonomous vehicle competition at USC — Fall 2019 - Spring 2020
Annenberg Fellowship: Full Ph. D. funding — Fall 2015 - Spring 2019
Braffitec Scholarship: Brazilian government funding for graduate studies in France — Fall 2011 - Spring 2013
Interests: running, surfing, cooking, cocktail mixing