ANDRES LADINO

Research Control Enginer & Data Scientist

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EXPERIENCE

Postdoctoral researcher

IFSTTAR - French institute of science and technology for transport

Jan 2018 – Ongoing Lyon, France

- I develop methods for control of connected vehicles and platoon strategies in complex traffic networks at LICIT (https://bit.ly/licitfr)
- Measure impact of platoons in traffic flow (ENSEMBLE WP4.5).
- I have participated in the Autonomous Vehicles workshop at IPAM (http://bit.ly/IPAM-AV)

Research assistant

CNRS / INRIA - National center for scientific research/ French Institute for Research in Computer Science and Automation

August 2014 – October 2017 Grenoble, France

- I was SPEEDD project researcher (within Traffic Use Case) at the NeCS (http://bit.ly/necsfr).
- Visitor reesearcher at IPAM (http://bit.ly/Speech-IPAM)
- I have developed short-term forecasting algorithms for traffic networks. Real-time operation at (http://gtl.inrialpes.fr/status)

Instructor Professor

Pontifical Xaverian University - Universidad Javeriana

January 2011 – August 2014 Bogota, Colombia

- I taught: Dynamic systems, Control theory, Control laboratory
- I was leader of the communication committee. Project ADDE SALEM

Process Analyst

IBM - International Business Machines

Aug 2007 – Apr 2009 Bogota, Colombia

- Process Analyst: Business Process in IT Services / Strategic Outsourcing
- IT Manuals: Avianca (Airline), Belcorp (Beauty), Colseguros (Insurance)

PROJECTS

ENSEMBLE

European Union/IFSTTAR

3 years IFSTTAR, France

The main goal of the ENSEMBLE project is to pave the way for the adoption of multi-brand truck platooning in Europe to improve traffic safety, throughput and fuel economy. (http://bit.ly/EnsemblePlatoonEU)

SPEEDD

European Union/CNRS

3 years CNRS, France

Development of real-time event recognition and forecasting technology operating on Big Data. (http://bit.ly/SpeeddEU)

LIFE PHILOSOPHY

"I would rather have questions that can't be answered than answers that can't be questioned."

MOST PROUD OF

Being persistant in life
Starting a new life in a new country

STRENGTHS

Hard-working | Organized | Eye for detail | Motivator | Good listener

C++ | Python | R | git | Matlab | Traffic Flow Theory | Intelligent Transportation Systems | Automatic Control | Statistical Analysis & Learning

LANGUAGES

Spanish ●●●●●

English ●●●●○

French ●●●●○

EDUCATION

Ph.D. in Automatic Control

Université Grenoble Alpes

Sept 2014 – Mar 2018

Thesis title: Estimation and prediction in large scale traffic networks

M.E. in Electronics

Pontifical Xavierian University

Jul 2009 – Dec 2011

B.E. in Electronics

Pontifical Xavierian University

Jan 2003 – Sep 2008

PROJECTS

ADDE SALEM

European Union/Politecnico di Milano - Pontifical Xaverian University

3 years | PUJ, Colombia

Adde Salem analysed to what extent engineering joint degrees' curricula reflected job market needs in the most developed countries of Latin America. (http://bit.ly/AddeSalem)

CERTIFICATIONS & AWARDS

Data Scientist with Python

Data Camp

April 2019 | http://www.datacamp.com

A series of online lectures & projects on how to combine statistical and machine learning techniques with Python programming to analyze and interpret complex data.. (http://bit.ly/DC_DSwPython)

Honourable Mention

Master Thesis

April 2012 | PUJ, Colombia

On predictive control of hybrid systems subject to variable time delays This thesis analyzes control methods for discrete linear systems with variable time delays using predictive tools while studying their stability properties.

PUBLICATIONS

Journal Articles

- Duret, Aurelien, Meng Wang, and Andres Ladino (2019). "A hierarchical approach for splitting truck platoons near network discontinuities". In: *Transportation Research Part B: Methodological*. ISSN: 01912615. DOI: 10.1016/j.trb.2019.04.006.
- Ladino, Andres, A. Y. Kibangou, et al. (2017). "A real time forecasting tool for dynamic travel time from clustered time series". In: *Transportation Research Part C: Emerging Technologies* 80, pp. 216–238. ISSN: 0968090X. DOI: 10.1016/j.trc.2017.05.002.

Conference Proceedings

- Duret, A, A Ladino, and M Wang (2018). "Hierarchical multi-injection strategy and platoon manoeuvres at network junctions". In: *2nd Symposium on Management of Future Motorway and Urban Traffic Systems*. Ed. by EU. Vol. 2. Ispra, pp. 11–13.
- Ladino, Andres, Carlos Canudas-de-Wit, et al. (2018). "Density and flow reconstruction in urban traffic networks using heterogeneous data sources". In: *2018 European Control Conference (ECC)*. ed. by IEEE. Limasol, Chyprus: IEEE, pp. 1679–1684. ISBN: 978-3-9524-2698-2. DOI: 10.23919/ECC.2018.8550267.
- Ladino, Andres, Alain Kibangou, et al. (2017). "Travel time forecasting from clustered time series via optimal fusion strategy". In: *2016 European Control Conference, ECC 2016*, pp. 2234–2239. ISBN: 9781509025916. DOI: 10.1109/ECC.2016.7810623.
- Ladino, Andres and Diego Patino (2013). "On the stability of predictive controllers for linear systems with variable time delays". In: *2013 American Control Conference (Acc)*, pp. 3254–3259. ISBN: 0743-1619; 978-1-4799-0178-4. DOI: 10.1109/ACC.2013.6580333.

REFEREES

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- Duret, Aurelien, Meng Wang, and Andres Ladino (in press 2019). “A Hierarchical Approach For Splitting Truck Platoons Near Network Discontinuities”. In: *23rd International Symposium on Transportation and Traffic Theory, ISTTT*.