ANDRES LADINO

Research Engineer & Data Scientist

Sep 5 1986, 34 | contact@andresladino.com | +33 660-41-7308 | 25, Avenue François Mitterrand, 69675 Bron
Lyon, FRANCE | www.andresladino.com/ | @aladinoster | linkedin.com/in/andres-ladino
github.com/aladinoster | orcid.org/0000-0002-1198-2287

EXPERIENCE

Postdoctoral researcher

UGE - University Gustave Eiffel

Jan 2020 – Ongoing | Lyon, France

- Please refer to activities in my previous position institution. Recently created after disolution of IFSTTAR

Postdoctoral researcher

IFSTTAR - French institute of science and technology for transport

Jan 2018 – Dec 2020 | Lyon, France

- Developed 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 / EU).
- Developed software package for interaction of CAVs and traffic simulators. (https://symupy.readthedocs.io/en/stable/)
- Attended and Participated at 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

- SPEEDD project researcher (within Traffic Use Case) at the NeCS (http://bit.ly/necsfr).
- Participated in the long program on Traffic Flow (http://bit.ly/Speech-IPAM)
- 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

- Courses taught: Dynamic systems, Control theory, Control laboratory
- 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
- Coordinated and wrote Manuals jointly with IT management team:
  - Avianca (Airline)
  - Belcorp (Beauty)
  - Colseguros (Insurance)

MOST PROUD OF

International experience
Having the opportunity to work in an international environment

SKILLS

Traffic Flow Theory | Intelligent Transportation Systems | Automatic Control | Statistical Analysis | Statistical Learning | Machine Learning

C++ | Python | R | git | Matlab | SQL

LANGUAGES

Spanish ●●●●●

English ●●●●○

French ●●●●○

EDUCATION

Ph.D. in Automatic Control

Université Grenoble Alpes

Sept 2014 – Mar 2018 | Grenoble, FR

Thesis title: Estimation and prediction in large scale traffic networks

M.Eng. in Electronic Engineering

Pontifical Xavierian University

Jul 2009 – Dec 2011 | Bogota, CO -GPA: 4.5/5.0

B.Sc. in Electronic Engineering

Pontifical Xavierian University

Jan 2003 – Sep 2008 | Bogota, CO -GPA: 4.0/5.0

HOBBIES

Piano, outdoor activities (Hiking, Cycling)

PROJECTS

ENSEMBLE

European Union/IFSTTAR

3 years | Lyon, France

ENSEMBLE is a European Union funded reseach project 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 | Grenoble, France

SPEEDD is a FP7 EU research project for Development of real-time event recognition and forecasting technology operating on Big Data. (http://bit.ly/SpeeddEU)

ADDE SALEM

European Union/Politecnico di Milano - Pontifical Xaverian University

3 years | Bogota, 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

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)

AWARDS

2nd Prize, Student Thesis Contest

IEEE, Industry Applications Society

October 2012 | Las Vegas, USA

On predictive control of hybrid systems subject to variable time delays This prize recognizes the best emerging academic work on the scope of the Industry Applications Society, in particular advancement of the theory and practice of electrical and electronic engineering.

Honourable Mention

Master Thesis

April 2012 | Bogota, 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 (2020). “A hierarchical approach for splitting truck platoons near network discontinuities”. In: *Transportation Research Part B: Methodological* 132. An optional note, pp. 285–302.
- 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. URL: http://dx.doi.org/10.1016/j.trc.2017.05.002.

Conference Proceedings

- Ladino, Andres, Aurélien Duret, and Nour-Eddin El Faouzi (2020). “Calibration and impact of control strategies for splitting truck platoons at on-ramps :” in: *TRB 2020 Annual Meeting*. Ed. by Transportation Research Board. Washington, DC, USA.
- Ladino, Andres and Meng Wang (2020). “A dynamic game formulation for cooperative lane change strategies at highway merges”. In: *IFAC World Congress 2020*. Ed. by International Federation of Automatic Control. Berlin, Germany.
- Duret, Aurelien, Meng Wang, and Andres Ladino (2019). “A Hierarchical Approach For Splitting Truck Platoons Near Network Discontinuities”. In: *23rd International Symposium on Transportation and Traffic Theory, ISTTT*, pp. 627–646.
- 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. URL: https://hal.archives-ouvertes.fr/hal-01296525/.
- 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.