Tiago Tamagusko

Personal Data

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Research Interests

My research focuses on artificial intelligence applications in the transportation field. I am especially interested in machine learning algorithms, asphalt pavements, intelligent transportation systems, and embedded systems.

Portfolio

Viseu Airport Study — Data analysis to improve the runway at Viseu Airport.

Experience

since 2020 — **Data Scientist/Volunteer** at Junior Enterprise for Science and Technology (JEST), coordinator of the Technology and Innovation team.
Coimbra, Portugal

2013–2018 — **Civil Engineer/Researcher** at Transportation and Logistics Laboratory (LabTrans/UFSC), research related to Road Infrastructure, Road Safety, Intelligent Transportation System, and High Speed Weigh-in-motion.
Florianópolis, Brazil

2009–2013 — **Intern** at Transportation and Logistics Laboratory (LabTrans/UFSC), research related to Brazilian rail and road networks. Support in the development of management software for the National Transport Infrastructure Department.
Florianópolis, Brazil

2004–2005 — **Telecommunications Technician** at Alcatel (Alcatel-Lucent Enterprise), Development of a platform in PHP for access control and monitoring access keys for the company's infrastructures.
São José, Brazil

Education

since 2020 — Ph.D. Candidate, Transport Systems
University of Coimbra, Portugal
Thesis — Artificial Intelligence applied to Transport Infrastructure Management

2018–2020 — M.Sc., Urban Mobility Management
University of Coimbra, Portugal
Dissertation — Airport Pavement Design

2008–2013 — B.Sc., Civil Engineering
Federal University of Santa Catarina, Brazil
Final Project — Cost of Lack of Standardization of Railway Gauges in Brazil (in Portuguese)

2002–2004 — Tech., Computer Network and Telecommunications
Federal Institute of Santa Catarina, Brazil

Awards and Scholarships

Sept. 2020 FCT PhD Research Scholarship (2020-2024)

Publications

Hasselwander, M.; **Tamagusko, T.**; Bigotte, J.; Ferreira, A.; Mejia, A.; Ferranti, E. (2021). *Building Back Better: The COVID-19 Pandemic and Transport Policy Implications for a Developing Megacity*. Sustainable Cities and Society 69: 102864-102864. Elsevier. DOI: 10.1016/j.scs.2021.102864

Tamagusko, T. and Ferreira, A. (2020). *Data-Driven Approach to Understand the Mobility Patterns of the Portuguese Population during the COVID-19 Pandemic*. Sustainability, 12, 9775. MDPI. DOI: 10.3390/su12229775

Tamagusko, T. and Ferreira, A. (2020). *Software Tools for Airport Pavement Design*. In: Rocha Á., Adeli H., Reis L., Costanzo S., Orovic I., Moreira F. (eds) Trends and Innovations in Information Systems and Technologies. WorldCIST 2020. Advances in Intelligent Systems and Computing, vol 1160. Springer. DOI: 10.1007/978-3-030-45691-7_7

Guerson, L. P.; Gevaerd, B. M.; Otto, G. G.; **Tamagusko, T.**; Valente, A. M. (2016). *Test Site for Evaluation of High-Speed WIM and ITS Solutions in Brazilian Conditions*. In: ICWIM7 Proceedings, 2016. Proceedings: icwim7_bookproceedings

Projects

2020 | Portugal em Chamas, JEST, Portugal.
(Data Analyst)
Project to replicate the impact of fires in Portugal over the years.
github.com/tamagusko/portugal-em-chamas
Field | Data Analysis

2018-2019 | Application of ML for the OPorto Metro, Coimbra University, Portugal.
(Student)
Use of ML (K-Means & Decision Tree) to predict OPorto Metro validations;
Field | Artificial Intelligence

2018 | Traffic Simulation, Coimbra University, Portugal.
(Student)
Traffic simulation (PTV-Visum) for the southern part of the city Coimbra.
Field | Traffic Simulation

2013-2015 | Development of new technologies for HS-WIM, LabTrans, Brazil.
(Researcher)
Development of a new High-Speed-Weigh-In-Motion (HS-WIM) model.
PIAF Project (LabTrans)
Field | Transport Infrastructure

Courses

2021 | Mastering Big Data with Free Platforms, USP
USP / Online
Duration: 32h
Field | Big Data

2020 | Machine Learning, Coursera
Stanford / Online
Duration: 11 weeks
Field | Artificial Intelligence

2014 | HDM4 Software Operation, FAPEU
Florianópolis, Brazil
Duration: 40h
Field | Transport Infrastructure

Updated: January 12, 2022