Pedro N. de Lima

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EDUCATION

UNISINOS University, São Leopoldo, Rio Grande do Sul, BR

- M.Sc. in Production and Systems Engineering — Mar 2016 – Feb 2018
- B.Sc. in Production Engineering — Jan 2009 – Dec 2015
  - **Undergraduate Teaching Assistant - Statistics**: Provided weekly peer-to-peer support to undergraduate students in Statistics. (Feb 2013 – Dec 2013).

TEACHING EXPERIENCE

UNISINOS University

- Lecturer — Mar 2018 – Current

Teaches the following disciplines at Engineering and Management courses:

- Operations Research - Linear Programming;
- Simulation Modeling (Discrete Event Simulation);
- Operations Management;
- Information Systems Management.

RESEARCH EXPERIENCE

GMAP | UNISINOS: Research Group on Modeling for Learning

- Master Research Assistant — Mar 2016 – Feb 2018
  - Assignments: Developed a Monte Carlo Simulation package in R for cost-benefit analysis of Organizational Safety and Health Initiatives. In the scope of the master's research project, developed a range of algorithms for exploratory modeling and analysis of system dynamics models in R, using the Robust Decision Making approach.
  - Adviser: Prof. Daniel Pacheco Lacerda
- Undergraduate Research Intern — Jun 2013 – Dec 2015
  - Assignments: Provided assistantship for research projects delivered to private companies and public agencies. Developed an interface for system dynamics simulation integrating Ithink software and Excel, using VBA.
  - Supervisors: Prof. Luis Henrique Rodrigues and Prof. Daniel Pacheco Larcerda

AWARDS

- **Best Brazilian Production Engineering Masters Dissertation**, ABEPRO — 2018
  Dissertation Title: Strategic Decision Making Under Deep Uncertainty in the 3D Printing Industry: A Robust Decision Making (RDM) Analysis. [Avaliação de Decisões Estratégicas sob Incerteza Profunda na Indústria da Manufatura Aditiva: Uma Análise a partir do Método Robust Decision Making (RDM).]
- **Best Brazilian Production Engineering Undergraduate Dissertation**, ABEPRO — 2016
  Dissertation Title: Problem Structuring Methods: A Review of methods to approach complex situations. [Problem Structuring Methods: Uma Revisão de Métodos para a Abordagem de Situações Complexas.].
- **CAPES PROSUP Scholarship**, Education Ministry, Brazilian Federal Government — 2016
  Merit-based scolarship for master-level studies.
- **InovApps Prize**, Communications Ministry, Brazilian Federal Government — 2015
  For proposing and deploying the Avalia Brasil App (an Android app aiming to measure Brazilian public service quality with the SERVPERF scale).
- **PROUNI Scholarship**, Education Ministry, Brazilian Federal Government — 2013
  Merit-based scolarship for undergraduate studies.

SOFTWARE SKILLS

- **Programming: (In order of proficiency) - Github Profile: github.com/pedroliman**
  - **R** (including package development and Web Apps with the Shiny Package), **SQL**, **mySQL**, **python**.
- **Other Software:**
  - **iThink** (SD simulation), **Arena** (DE Simulation), **VosViewer** (Science Mapping), **Wordpress** (website development), **Tableau** (data reporting), **Adobe Premiere** (video editing).

PROFESSIONAL AFFILIATIONS & ACTIVITIES

- **Society for Decision Making Under Deep Uncertainty** — 2017 – Present
  Member, Communications Team Volunteer
- **NUGEEP - Rio Grande do Sul State's Undergraduate Student Chapter - ABEPRO** — 2015 – 2016
  Organized the first SIGEPRO (Rio Grande do Sul State's Production Engineering Symposium) in 2016, leading NUGEEP. **SIGEPRO** is a student-led academic event, bringing together more than 300 students from around the state annually.

SELECTED PUBLICATIONS

Original titles are enclosed between parentheses for publications available only in portuguese.

Books

Rodrigues, Luis Henrique, et al. 2014. *Operational Research - Linear programming step by step - from problem understanding to solution interpretation. (Pesquisa operacional : programação linear passo a passo : do entendimento do problema à interpretação da solução).* São Leopoldo: Editora UNISINOS. ISBN: 978-85-7431-671-0. doi:10.13140/RG.2.1.4044.6162.

Chapters

Veit, Douglas Rafael, Daniel Pacheco Larcerda, and Pedro Nascimento de Lima. 2017. "The impacts of Additive Manufacturing on production systems". In *Lecture Notes in Management and Industrial Engineering*, ed. by Josefa Mula et al., 187–194. Springer. ISBN: 9783319934884. doi:10.1007/978-3-319-93488-4. https://doi.org/10.1007/978-3-319-93488-4_21.

Forthcoming Papers

Dresch, Aline, et al. 2019. "Inducing Brazilian Manufacturing SMEs Productivity with Lean Tools".

Lima, Pedro Nascimento de, Aline Dresch, and Daniel Pacheco Lacerda. 2019. "Do Socioeconomic Contextual Factors Influence SMEs Service Quality? A cross-sector and cross-city SERVPERF analysis".

STANDARDIZED TESTS

- English: TOEFL iBT 108 / 120 . Reading: 30/30, Listening: 29/30. Speaking: 26/30. Writing: 23/30 .
- GRE Quantitative: 165 / 170 . GRE Verbal: 160 / 170 . GRE Analytical Writing: 4 / 6.

SELECTED PROJECTS

This section summarizes my contribution to unpublished research and consulting projects, most of them conducted at GMAP | UNISINOS Researh Group.

- **Capacitor Manufacturing Plant Simulator** 2018
  Developed a comprehensive discrete event model of a capacitor manufacturing plant. The model was used to compare different throughput maximizing scenarios.
- **Arena2R R Package:** An R Package for Arena Simulation Users 2018
  This package offers a growing collection of plots, summary statistics, and tools for Arena Simulation Users. https://arena2r.pedronl.com/
- **Substitution and Competition dynamics within a commodity market** 2018
  - **Automated Data Collection with R:** Developed R scripts to systematically collect and aggregate thousands of time series available from public web APIs, which may explain global and regional demand of the product of interest.
  - **Simulation Model:**Developed a comprehensive system dynamics model of substitution and competition on a commodity market.
- **OSHCBA R Package:** Monte Carlo Simulator for OHS Projects 2017
  Developed an R package for Monte Carlo simulation of costs and benefit analysis of Organizational safety and health projects.
- **Scenarios Room Project:** Competition between Mining Companies 2015
  Developed a model of the global competition between players at the iron ore sector, taking into account regional comparative advantages. Also developed a VBA tool to run simulations, aggregate and summarize simulation results.

WORK EXPERIENCE

Rede Industrial, SIGMA CMMS, Rio Grande do Sul, BR

- Chief Analyst Jan 2012 – May 2013
  - Oversaw SIGMA's (a computerized maintenance management system) support and development team.
- Business Analyst Mar 2009 – Jan 2012
  - Carried out requirement and use-case analysis for software improvements; Developed a working knowledge of Structured Query Language (SQL) for database reporting.
- Support Assistant, Sigma CMMS Software May 2008 – Dec 2009
  - Assisted Sigma's customers' issues troubleshooting and carried out Sigma's Quality Assurance processes.

[*Updated on November 28, 2018*]