

PAULO JORGE LEITÃO ADEODATO

[Centro de Informática-UFPE](#) * Recife-PE, Brazil * pjla@cin.ufpe.br * +55 81 2126 8430
br.linkedin.com/in/pauloadeodato (In English) * lattes.cnpq.br/3524590211304012 (In Portuguese)

Education

[King's College London](#), University of London, UK 1992-1997
Ph.D. In [Mathematics](#) under [Prof. John G. Taylor](#)'s supervision
Title: Theoretical investigations on RAM-based neural networks
Sponsor: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, [CAPES](#), Brazil
[Universidade Federal de Pernambuco, UFPE, Brazil](#) 1989-1991
M.Sc. in Computer Science under [Prof. Cyllyton J. G. Fernandes](#)' supervision
Title: The mechanism of hysteresis on the adaption of artificial neural networks
Sponsor: Conselho Nacional de Pesquisa, [CNPq](#), Brazil
[Universidade Federal de Pernambuco, UFPE, Brazil](#) 1988-1989
M.B.A. in Production Engineering under Prof. Telmo F. R. Maciel's supervision
Title: Replacement policy for the light bulbs in an industrial plant based on their life curve
[Universidade Federal de Pernambuco, UFPE, Brazil](#) 1978-1982
B.Sc. in Electronics Engineering
Undergraduate research: Optical efficiency of compound parabolic concentrators for solar radiation
Supervisor: [Prof. Naum Fraidenraich](#)

Professional Experience

[Universidade Federal de Pernambuco, UFPE, Brazil](#) 1997-present
Position: Adjunct Professor at Centro de Informática
Research: Decision support systems, Data mining, Artificial intelligence, Neural networks and Time series forecasting
Created the first data mining course in Brazil in 1999 and is still responsible for it.
[Stanford Graduate School of Education](#) + [Lemann Center for Educational Entrepreneurship and Innovation in Brazil](#) 2017/01-03
Position: Visiting Scholar
Project: The Application of Data Mining to Open Access Databases to Help Propose and Validate Public Educational Policies
[NeuroTech Ltda. \(Decision Support Systems\), Brazil](#) 1997-2013
Position: Entrepreneur, Founder and Partner
Coordinator of Innovation strategies, Research and Development
Conceived the company's analytics tools and Supervised over 250 data mining projects
[Kitner & Steinberg Consulting Ltda., Brazil](#) 1988-1989
Position: Consultant on Telecommunications
Project manager at CHESF Power Generation Company
Role: Create a database of all telecom equipment, their features and events for fault/failure prediction.
[DigiRede Nordeste S.A. \(Computer manufacturer\), Brazil](#) 1982-1988
Position: Quality manager
Role: Deploy the company's Total Quality Plan in its manufacturing plant and manage the product quality.

Graduate Degree Supervisions Related to Education

<u>Research degrees supervisions</u>	<u>Conclusion</u>
Hadautho R. B. Silva's Ph.D. : Analysis of Temporal the Evolution of Brazilian Secondary Education for Helping Public Policy Making	2018 (Est.)
Rogério L. C. Silva Filho's M.Sc.: Analysis and Prediction of Student Performance from the Federal Institutes Based on their Test Scores	2017 (Est.)
Rodrigo L. Rodrigues' Ph.D. : An Educational Data Mining Approach to Performance Prediction Based on Behavior Patterns in Learning Self-Regulation (In Portuguese)	2016
Fábio C. Pereira's Ph.D. : Granularity Transformation of Categorical Variables in Binary Decision Problems Applied to Education (In Portuguese)	2015

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<u>Research degrees supervisions</u> (Cont.)	<u>Conclusion</u>
Rosalvo F. Oliveira Neto's Ph.D. : CoMoVi: A Framework for Data Transformation in Credit Behavior Scoring Applications Inspired by Model-Driven Development (In Portuguese)	2015
Maílson Santos Filho's M.Sc. : A Multidimensional Approach to OLAM as a Performance Evaluation Tool for Binary Classification Models in Education (In Portuguese)	2015
Hadautho R. B. Silva's M.Sc. : A Data Mining Approach for Preventing Dropout / Retention at UFPE (In Portuguese)	2013
Roberto T. Florêncio Filho's M.Sc. : Performance Assessment of the Bolsa Escola Program in Recife-PE (In Portuguese)	2009
Claudia C. C. Salgues' M.Sc. : A Methodology for Candidate Selection to the M.Sc. in Computer Science Based on Data Mining (In Portuguese)	2005

Publications Related to Education

<u>Publications (Full papers)</u>	<u>Release</u>
Optimal Categorical Attribute Transformation for Granularity Change in Relational Databases for Binary Decision Problems in Educational Data Mining. 14 th CONTECSI – Intern. Conf. on Information Systems and Technology Management.	2017 (To Appear)
Optimal Categorical Attribute Transformation for Granularity Change in Relational Databases for Binary Decision Problems in Educational Data Mining . Cornell University Library ArXiv, 5 pages.	2017
A framework for data transformation in Credit Behavioral Scoring applications based on Model Driven Development . <i>Expert Systems with Applications journal</i>	2017
An Application of Data Mining to Predict and Identify Relevant Factors for Student Dropout at the 9th Grade . Proc. Brazilian Symposium on Educational Informatics, pp. 1096-1105 (In Portuguese)	2016
Data Mining Solution for Assessing Brazilian Secondary School Quality Based on ENEM and Census Data . 13 th CONTECSI – Intern. Conf. on Information Systems and Technology Management, pp.1112-1124.	2016
Variable Transformation for Granularity Change in Hierarchical Databases in Actual Data Mining Solutions . Intern. Conf. Intelligent Data Engineering and Automated Learning, pp. 146-155.	2015
Brazilian Secondary Private Schools Quality Prediction Based on their Students' ENEM Test Scores . Brazilian Symposium on Educational Informatics, pp. 891-895 (In Portuguese)	2014
CoMoVi: a Framework for Data Transformation in Credit Behavioral Scoring Applications Using Model Driven Architecture . 26 th Intern. Conf. on Software Engineering and Knowledge Engineering, pp. 286-291.	2014
A Data Mining Approach for Preventing Undergraduate Students' Retention . Intern. Joint Conf. on Neural Networks, pp.1-8.	2012
Knowledge Reuse in Data Mining Projects and Its Practical Applications . Intern. Conf. on Enterprise Information Systems, pp.317-324.	2009
Decision Support System for Selecting MSc Candidates for the Centro de Informática Graduate Program Based on the Student's Success. VII Brazilian Congress on Neural Networks, 6 pages.	2005

Sponsored Research Projects

Intelligent Vessel Traffic Monitoring System (iVTMS)	2013-2015
Companies: NeuroTech (Brazil) and GSTS (Canada)	
R&D Centers: CIn-UFPE , Dalhousie University	
Sponsors: Facepe and NeuroTech (Brazil) and ISTP and GSTS (Canada)	
Total investment: CAD 1,600,000	
Decision Support System for Auditing for Pernambuco's Court of Accounts	2011-2013
Company: NeuroTech (Brazil)	Sponsor: CNPq/RHAE
R&D Center: CIn-UFPE	Total investment: BRL 200,000
Methodology for Estimating the Degradation of the Capacity of Energy Circuit Breakers	2009-2010
Company: CHESF Power Generation Co. (Brazil)	Sponsor: Brazilian R&D fund for Power Companies
R&D Centers: CESAR and CIn-UFPE	Total investment: BRL 400,000
Data Mining Solution for Unavailability Estimation of Electrical Power Grids	2008-2010
Company: CHESF Power Generation Co. (Brazil)	Sponsor: Brazilian R&D fund for Power Companies
R&D Centers: CESAR and CIn-UFPE	Total investment: BRL 700,000

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Entrepreneurship and Associations

NeuroTech Tecnologia da Informação , Brazil (Invested by a private-equity fund in 2013)	1998-2013
Position: Founder and Partner	
Role: Research coordination, innovation and strategic planning Decision Support Systems for Credit risk assessment, Debt collection and Fraud detection	
Centro de Estudos e Sistemas Avançados do Recife (CESAR), Brazil	1996-Present
Position: Founder and Member of the board	
Role: Discuss and vote the institution's accounts and strategic plan AI-Leader, Brazil (Intelligent Character Recognition)	2002-2003
Founder	
Role: Research coordination, innovation and strategic planning	
IEEE-CIS Industry Liaison Committee	2014-Present
Position: Member	
Role: Discuss and participate in meetings to help IEEE-CIS bridge the gap between academy and industry	
IT Strategic Committee of the American Chamber of Commerce	2013-Present
Position: Member	
Role: Discuss and Contribute to the IT entrepreneurship and business policies in Pernambuco and Brazil	
UFPE Student Retention and Dropout Committee	2014-Present
Position: Member	
Role: Monitor and assess student performance and Discuss and Contribute to UFPE's policies	

International awards

<u>Award</u>	<u>Year</u>
1st Place. International Competition of Time Series Forecasting	2012
Organizers: Institute of Electrical and Electronics Engineers - IEEE , Popular Libros (Spain) and Kaggle (USA)	
Role: Team coordinator	
1st Runner-Up Winning Team. The 11th PAKDD Competition	2007
Organizers: SAS Institute - China and Singapore Institute of Statistics	
Role: Team coordinator	
2nd Place. NN3 Artificial Neural Networks & Computational Intelligence Forecasting Competition	2007
Organizers: The International Institute of Forecasters (IIF), SAS Institute and Lancaster Centre for Forecasting	
Role: Team coordinator	
1st Place. Enterprise Channeling Opportunities Award	2002
Organizers: World Economic Forum , New York, USA.	
Role: Entrepreneur	

National awards (Brazilian)

<u>Award</u>	<u>Year</u>
1st Place. FINEP Innovation Award for Small Entrepreneurship for the Northeast Region	2013
Organizers: Brazilian Project and Research Innovation Funding Agency – FINEP	
Role: Innovation coordinator	
1st Place. The Most Innovative Product (NeuroProfiler)	2007
Event: International Congress on Baking Automation (CIAB)	
Organizers: Brazilian Banking Federation (FEBRABAN) and Software Technology Institute (ITS)	
Role: Product designer and developer	
1st Place. Research & Development Project Management Award	2006
Organizers: Electricity Company of Pernambuco State (CELPE)	
Role: Vice-coordinator	

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<u>Award (Cont.)</u>	<u>Year</u>
1st Place. Best Paper Award in Sessions 4 and 5 Event: VI Brazilian Symposium on Electrical Systems Automation Organizers: Brazilian National Committee of Electrical Energy Production and Distribution (CIGRÉ Brasil) Role: Project leader and paper co-author	2005
1st Place. INOVAR Entrepreneur Award Organizers: Brazilian Project and Research Innovation Funding Agency – FINEP Role: Entrepreneur	2001

Summary of Activities and Production

Professional experience in management	7 years
Research and lecturing professional experience	20 years
Journal publications	7
Conference publications (full papers)	67
Book chapter publications	2
Book edition	1
Supervised Ph.D. Theses	9
Supervised M.Sc. Dissertations	18
Supervised undergraduate final course research project	4
Research, development and innovation projects	12
International contest awards	4
National awards (Brazilian)	5