

MAURICIO SOTO, PH.D.

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SUMMARY

Global Artificial Intelligence PM with 15+ years experience in AI, industrial research, development, analytics. PC Member of 7 conferences, 15+ publications, 10 patents, keynote speaker/panelist, fluent in three languages. Excellent leadership, collaboration and communication skills; relationship-building, innovation and problem solving.

EDUCATION

Carnegie Mellon University	School of Computer Science	Ph.D. in Software Engineering
Carnegie Mellon University	School of Computer Science	M.Sc. in Software Engineering
University of Costa Rica	School of Computer Science	B.Sc. in Computer Science

PROFESSIONAL EXPERIENCE

Global R&D Artificial Intelligence Program Manager Hitachi Energy	2020 – Present (5 years)
• Manage AI strategy globally (8 technology centers), projects, innovation, collaborations, mentorship, and IP • Provide expert guidance and maintain consistent tooling and procedures throughout the business unit • Create ML models and algorithms from time series data to support asset monitoring for third party clients • Establish and refine AI standards, processes, tools, quality metrics, governance, and training programs	
Software Researcher Carnegie Mellon University	2014 – 2021 (7 years)
• Designed and built automatic program repair approaches based on source code and test suite analysis • Created ML association rules describing human code changes to inform automated repair approach	
Research Scientist ABB Corporate Research Center	2019 – 2020 (1.5 years)
• Led machine learning project creating models to predict productivity indicators from biometric data • Designed, implemented, and tested 3D components creating prototype of automatic wiring robot	
Software Developer Experian	2013 – 2014 (1 year)
• Increased end-user security by building identity theft prevention software in collaborative agile team	
Team Leader Mathematics and Meta-Mathematics Research Center	2010 – 2014 (5 years)
• Led research center's development team (5 engineers) to create websites for research conferences	
Web Developer Rutgers University	2013 – 2013 (1 year)
• Developed and deployed online test-taking and facility evaluation university-wide scalable applications	
Software Developer Intel	2012 – 2013 (1 year)
• Redesigned a calendaring application in C#, development and deployment to production	

TECHNICAL SKILLS

ML Libraries	scikit-learn, pandas, matplotlib, seaborn, scipy, numpy, keras, math, nltk, tensorflow
ML Skills:	Gen AI, Un/Supervised learning, Data cleansing, Cross validation, Outlier handling
Programming:	Python, Java, R, C#, Bash, LaTeX, C, C++, SQL, Scala, PHP, XML, HTML, CSS, RAPID
Frameworks/Tools:	JupyterLab, Anaconda, Azure, AWS, R Studio, ONNX, Flask, Git, Travis CI, JUnit, Weka
Language skills:	Fluent in English, Spanish, and Portuguese

SELECTED PUBLICATIONS AND PATENTS (Full list: <https://mausotog.github.io/#research>)

- Sbravati et al. "Power Transformer Digital Twin: Enhanced Aging Calculation", Cigre 2024
- Cheim et al. "Artificial Intelligence in the Era of Digital Transformers", Transformers Magazine 2023
- Soto et al. "Observing and Predicting Knowledge Worker Stress, Focus and Awakeness", IJHCS 2021
- Soto et al. "Applying Data Science to Improve Solar Power Production and Reliability", INFORMS 2019

AWARDS AND LEADERSHIP

- IEEE Senior Member and Sub Task Force Leader / Cigre Work Group Representative
- Recognized as "Individual with Exceptional Ability in the National Interest", U.S. Government, 2020 and 2022
- Program Committee Member: CIGRE'25, JoCICI'23, EMSE'23, ESEM'20, MSR'20, EMSE'19, MSR'19
- Mentoring: 2 PhD Interns, 8 MSc Interns, 2 Teaching Assistantships, 2 REU Students, 3 Engineering Camps
- Founder and Chair of 350-employee ERG (2021-Present) / Representative to Google (2019), to SHPE (2023)