PhD Jesús García-Ramírez
Postdoctoral Researcher
Facultad de Ingeniería, Universidad Nacional Autónoma de México

Contact

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Personal Information

English Certification: TOEFL 562 pts.

Areas de Interest: Artificial Intelligence, Machine Learning, Digital Image Processing, Deep Learning, Reinforcement Learning, Parallel and Distributed Computing

Software: Python, Java, C++, C#, Keras, Tensorflow, Latex, ScikitLearn, Linux

Biography

Jesús García Ramírez is currently working as a Postdoctoral Researcher at the Faculty of Engineering, National Autonomous University of Mexico. He has also been involved in teaching activities at the Metropolitan Polytechnic University of Hidalgo. He received a Bachelor's degree in Computer Systems Engineering from the Technological Institute of Pachuca in 2015. Subsequently, he obtained a Master's degree in Computer Science from the Autonomous University of Puebla in 2017. In 2022, he earned a Ph.D. in Computer Science from the National Institute of Astrophysics, Optics, and Electronics. Additionally, he has engaged in article reviewing activities at workshops of international conferences on Artificial Intelligence.

Education

- **PhD in Computer Science**, Instituto Nacional de Astrofísica Óptica y Electrónica, Departamento de Ciencias Computacionales, 2018-2022
- **Master in Computer Science**, Benemérita Universidad Autónoma de Puebla, Facultad de Ciencias de la Computación, 2015-2017
- **Computer System Engineer**, Instituto Tecnológico de Pachuca, Departamento de Computación, 2010-2015

Professional Experience

- **Postdoctoral Researcher**, Universidad Nacional Autónoma de México, Facultad de Ingeniería, since March 2022.
- **Partial Time Professor**, Universidad Politécnica Metropolitana de Hidalgo, Maestría en Inteligencia Artificial, September 2022-April 2023.

Awards

- **2 times Best Ranked Professor**, Masters' in Artificial Intelligence, September-December 2022 and January-April 2023, Universidad Politécnica Metropolitana de Hidalgo.

Scholarships

- **Postdoctoral Researcher scholarship**, Programa de Apoyo a Proyectos de Investigación e Innovación Tecnológica (PAPIIT), Universidad Nacional Autónoma de México (UNAM) 2022-2023.
- **PhD scholarship**, Consejo Nacional de Ciencia y Tecnología (CONACyT), 2018-2022.
- **Master degree scholarship**, Consejo Nacional de Ciencia y Tecnología (CONACyT), 2015-2017.

Theses

- **PhD Thesis:** Aprendizaje por Transferencia en Aprendizaje por Refuerzo Profundo, **Advisors:** Eduardo Morales and Hugo Jair Escalante
- **MsC Thesis:** Análisis de Expresiones Faciales para la Detección de Estados de Ánimo, **Advisors:** José Arturo Olvera Lopéz and Ivan Olmos Pineda
- **BsC Thesis:** Evaluación de Objetos de Aprendizaje Mediante Linaje Electrónico, **Advisor:** Miguel Angel León Chávez (BUAP).

Publications

⊙ Scientific Journal ⊖ Internatinal Conferences ⊕ International Workshops and Low-Ranked Conferences

1. ⊖ **Jesús García-Ramírez**, Rodrigo Ramos Díaz, Jimena Olveres and Boris Escalante-Ramírez: Meta-Learning for hyperparameters tuning in CNNs for Chest Images. In Proceedings of HAIS 2023.
2. ⊙ **Jesús García-Ramírez**, Boris Escalante Ramírez and Jimena Olveres: Removing Zero-Variance Units of Deep Models for COVID-19 Detection, in IEEE Access (2023).
3. ⊖ **Jesús García-Ramírez**, Eduardo Morales and Hugo Jair Escalante: Model Compression for Deep Reinforcement Learning through Mutual Information. In Proceedings of IBERAMIRA 2022.
4. ⊙ **Jesús García-Ramírez**, Eduardo Morales and Hugo Jair Escalante: Source Tasks Selection for Transfer Deep Reinforcement Learning: A case of study on Atari games, in Neural Computing and Applications (2021).
5. ⊖ **Jesús García-Ramírez**, Eduardo Morales and Hugo Jair Escalante: Source Task Selection in Time Series via Performance Prediction. In Proceedings of MICAI 2021.
6. ⊖ **Jesús García-Ramírez**, Eduardo Morales and Hugo Jair Escalante: Multi-Source Transfer Learning for Deep Reinforcement Learning. In Proceedings of MCPR 2021.
7. ⊕ **Jesús García-Ramírez**, Eduardo F. Morales, and Hugo Jair Escalante: Selective Kernel Transfer in Deep Reinforcement Learning, AAAI-Workshop on Reinforcement Learning in Games (2020).
8. ⊕ **Jesús García-Ramírez**, Eduardo Morales, and Hugo Jair Escalante. Which kernels to transfer in Deep Q-Networks? (extended abstract). LatinX Workshop at NeurIPS, pp 1-3 (2019).
9. ⊙ **Jesús García-Ramírez**, J. Arturo Olvera-López, Ivan Olmos Pineda, and Manuel Martín-Ortíz: Mouth and Eyebrow Segmentation for Emotion Recognition Using Interpolated Polynomials in Journal of Intelligent & Fuzzy Systems (2018).
10. ⊖ **Jesús García-Ramírez**, J. Arturo Olvera López, Ivan Olmos Pineda, and Manuel Martín-Ortíz: ROIs Segmentation in Facial Images Based on Morphology and Density Concepts. In Proceedings of MCPR 2017.
11. **Jesús García-Ramírez**, Ivan Olmos Pineda, J. Arturo Olvera López, Manuel Martín Ortíz: Facial Expression Recognition Using Interpolation Features in Proceedings of MCPR-PSM 2017.
12. ⊕ **Jesús García-Ramírez**, Ivo H. Pineda T., María J. Somodevilla, Mario Rossainz, Concepción Pérez de Celis: Búsqueda paralela exhaustiva aplicada a cadenas de ADN y ARNi in Proceedings of LKE 2016.
13. ⊕ **Jesús García-Ramírez**, Ivan Olmos Pineda, J. Arturo Olvera López, Manuel Martín Ortíz: Edge Detection for Facial Expression Recognition, In Proceedings of LANMR 2016.
14. ⊕ **Jesús García-Ramírez**, J. Arturo Olvera López, Ivan Olmos Pineda, Georgina Flores Becerra, Adolfo Aguilar Rico: Thresholding Approach based on GPU for Facial Expression Recognition in Proceedings of MCPR-PSM 2016.
15. ⊕ Orlando Ramos Flores, Luis Alfredo Moctezuma Pascual, **Jesús García-Ramírez**, David Pinto Avendaño: Análisis sobre el idioma español en México, con base en la frecuencia de palabras azules, rojas, obscenas y vulgares en Twitter in Proceedings of LKE 2015.

Teaching Activities

Universidad Politécnica Metropolitana de Hidalgo: High Performance Computing · Machine Learning

Reviewer Activities

LXAI@ICML 2023 · LXAI@CVPR 2023 · LXAI@ECCV 2022 · LXAI@ICML 2022 · AIDBEI@AAMAS 2022 · LXAI@CVPR 2022 · LXAI@NeurIPS 2021

Invited Talks

- Explicabilidad y compresión de modelos profundos para detección de COVID-19. Primera semana de ingenierías UPIIT 2022.