

# Adín Ramírez Rivera

## Curriculum Vitæ

📍 Ole-Johan Dahls Hus – Gaustadalléen 23 B – N-0373 Oslo

☎ +47 2284 0818 • ✉ adinr@uio.no

🌐 [www.mn.uio.no/ifi/english/people/aca/adinr/](http://www.mn.uio.no/ifi/english/people/aca/adinr/) • 🎓 Google Scholar

## Education

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### Degrees.....

<i>Kyung Hee Univeristy</i>	South Korea
<b>Ph.D. in Computer Engineering.</b>	2009–2013
<i>Universidad de San Carlos de Guatemala</i>	Guatemala
<b>B.Eng. in Computer Science and Systems Engineering.</b>	2004–2009

### Others.....

<i>University of Oslo</i>	Norway
<b>Development Work for University Pedagogy.</b> (50 hrs.)	2023
<i>University of Oslo</i>	Norway
<b>Introductory Pedagogy Course.</b> (120 hrs.)	2022
<i>University of Oslo</i>	Norway
<b>Pedagogy Course on Research Supervision.</b> (30 hrs.)	2022
<i>University of Oslo</i>	Norway
<b>Pedagogy Course on Teaching and Learning for Accessibility and with Universal Design.</b> (10 hrs.)	2022
<i>University of Campinas</i>	Brazil
<b>Pedagogy Course on Planning Teaching Conditions.</b> (30 hrs.)	2016
<i>Universidad Diego Portales</i>	Chile
<b>University Education Diploma.</b> (150 hrs.)	2015
<i>Vicerrectoria de Pregrado, Universidad Diego Portales</i>	Chile
<b>Pedagogy Workshop on Strategies for the Development of an Effective Class.</b> (6 hrs.)	2015
<i>Vicerrectoria de Pregrado, Universidad Diego Portales</i>	Chile
<b>Pedagogy Workshop on Learning Evaluation.</b> (6 hrs.)	2014
<i>Vicerrectoria de Pregrado, Universidad Diego Portales</i>	Chile
<b>Pedagogy Workshop on Syllabus Design.</b> (4 hrs.)	2014
<i>Vicerrectoria de Pregrado, Universidad Diego Portales</i>	Chile
<b>Pedagogy Workshop on Learning Evaluation through Rubrics.</b> (6 hrs.)	2014
<i>Tata Consultancy Services and IT Education Centre of Excellence, Universidad de San Carlos de Guatemala</i>	Guatemala
<b>Technical Trainer.</b>	2008

<i>Tata Consultancy Services and IT Education Centre of Excellence, Universidad de San Carlos de Guatemala</i> <b>Java Technology.</b>	Guatemala 2008
<i>Tata Consultancy Services and IT Education Centre of Excellence, Universidad de San Carlos de Guatemala</i> <b>Exploring DBA using Oracle.</b>	Guatemala 2007–2008
<i>Tata Consultancy Services and IT Education Centre of Excellence, Universidad de San Carlos de Guatemala</i> <b>Software Architect.</b>	Guatemala 2007–2008

## Employment History

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### Academic.....

<i>Department of Informatics, University of Oslo</i> <b>Professor.</b>	Norway 2023–pres.
<i>Department of Informatics, University of Oslo</i> <b>Associate Professor.</b>	Norway 2022–2023
<i>Department of Computer Science, Reykjavik University</i> <b>Assistant Professor.</b>	Iceland 2021
<i>Institute of Computing, Universidade Estadual de Campinas</i> <b>Assistant Professor.</b>	Brazil 2016–2021
<i>Escuela de Informática y Telecomunicaciones, Universidad Diego Portales</i> <b>Assistant Professor.</b>	Chile 2013–2016
<i>Image Processing Lab, Kyung Hee University</i> <b>Researcher.</b>	South Korea 2009–2013
<i>IT Education Centre of Excellence, Universidad de San Carlos de Guatemala</i> <b>Instructor.</b>	Guatemala 05–06 2008
<i>Universidad de San Carlos de Guatemala</i> <b>Teaching Assistant.</b>	Guatemala 05–06 2008

### Academic Management.....

<i>Institute of Computing, Universidade Estadual de Campinas</i> <b>Information Systems Department's Head.</b>	Brazil 2020–2021
<i>Escuela de Informática y Telecomunicaciones, Universidad Diego Portales</i> <b>Master Degree Coordinator.</b>	Chile 2015–2016
<i>Escuela de Informática y Telecomunicaciones, Universidad Diego Portales</i> <b>Internship Coordinator.</b>	Chile 2013–2014
<i>IT Education Centre of Excellence, Universidad de San Carlos de Guatemala</i> <b>Manager.</b>	Guatemala 07–12 2008

### Industry.....

<i>ACS, a Xerox Company</i> <b>Specialist in Software Development.</b>	Guatemala 02–08 2009
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## Teaching Experience

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### Courses Taught

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<i>Department of Informatics, University of Oslo</i> <b>Advanced Deep Learning for Image Analysis.</b>	2023–pres.
<i>Department of Informatics, University of Oslo</i> <b>Self Supervised Probabilistic Learning (Special Curriculum).</b>	2022
<i>Department of Informatics, University of Oslo</i> <b>Digital Image Analysis.</b>	2022
<i>Department of Informatics, University of Oslo (jointly with UiT The Arctic University of Norway)</i> <b>Self Supervised Explainability on Graphs (Special Curriculum).</b>	2022
<i>Department of Computer Science, Reykjavik University</i> <b>Introduction to Computer Vision.</b>	2021
<i>Institute of Computing, University of Campinas</i> <b>Project on Information Systems.</b>	2017, 2019, 2021
<i>Institute of Computing, University of Campinas</i> <b>Probabilistic Machine Learning.</b>	2020
<i>Institute of Computing, University of Campinas</i> <b>Unsupervised Machine Learning.</b>	2020
<i>Institute of Computing, University of Campinas</i> <b>Operating Systems.</b>	2018, 2020
<i>Institute of Computing, University of Campinas</i> <b>Project on Compilers.</b>	2018–2019
<i>Institute of Computing, University of Campinas</i> <b>Algorithms and Computer Programming.</b>	2017
<i>Institute of Computing, University of Campinas</i> <b>Introduction to Computer Vision.</b>	2017–2020
<i>Universidad Diego Portales</i> <b>Computer Vision.</b>	2015
<i>Universidad Diego Portales</i> <b>Artificial Intelligence.</b>	2015–2016
<i>Universidad Diego Portales</i> <b>Operating Systems.</b>	2015–2016
<i>Universidad Diego Portales</i> <b>Advanced Programming.</b>	2014
<i>Universidad Diego Portales</i> <b>Pattern Recognition.</b>	2014
<i>Universidad Diego Portales</i> <b>Programming.</b>	2013–2014
<i>Universidad Diego Portales</i> <b>ICT Projects 1.</b>	2013–2014

<i>IT Education Centre of Excellence, Universidad de San Carlos de Guatemala</i> <b>Advanced Programming in Java.</b>	2008
<i>IT Education Centre of Excellence, Universidad de San Carlos de Guatemala</i> <b>Basic Programming in Java.</b>	2008
<i>Universidad de San Carlos de Guatemala</i> <b>Laboratory of Compilers 2.</b>	2007–2008
<b>Supervised Theses</b> .....	
<i>University of Oslo</i> A. Basic. “Sparsification with Variational Dropout.” Degree: Master.	2024
<i>University of Oslo</i> C. Bencsik. “Generating Halo Merger Trees based on Diffusion Models.” Degree: Master.	2024
<i>University of Oslo</i> F. Lunestad. “Classifying Neuroimaging Scans with Rejection for Outlier Filtering.” Degree: Master.	2024
<i>University of Oslo</i> M. Mellemstuen. “Unsupervised Representation Learning through Ranking on Image Data.” Degree: Master.	2024
<i>University of Campinas</i> J. Hernández. “On the Spatial Dilemma Linking Deep Motion Retargeting and Disentangled Representations from Video.” Degree: Ph.D.	2023
<i>University of Campinas</i> R. Kanehisa. “Semantic Segmentation with Global Mixture of Gaussian Priors.” Degree: Master.	2022
<i>University of Campinas</i> D. Saire. “A Latent Space Analysis in Encoder-Decoder Models to Improve the Representation Learning for Semantic Segmentation Task on Images.” Degree: Ph.D.	2022
<i>University of Campinas</i> T. Silva. “Self-Supervised Methods for Representation Learning of Visual Features.” Degree: Master.	2022
<i>University of Campinas</i> D. Barreto. “Hierarchical Variational Visual Attention.” Degree: Master.	2021
<i>University of Campinas</i> O. Basso Gomes. “Deep Convolutional Features for Sparse and Dense Registration in RGB-D SLAM.” Degree: Master.	2021
<i>University of Campinas</i> J. Arias Figueroa. “Deep Generative Models for Clustering: A Semi-supervised and Unsupervised Approach.” Degree: Master.	2018
<i>University of Campinas</i> D. Saire. “Multi-scale Morphological Image Simplification Based on Extremum Relationships.” Degree: Master. (Co-advised with Dr. Neucimar Leite)	2017

<i>Universidad Diego Portales</i>	
C. Sanhueza. "Reconocimiento de expresiones faciales en vídeos de ambiente natural mediante redes neuronales convolucionales y recurrentes." Degree: Master. (Co-advised with Dra. Beatriz Marin)	2017
<i>Universidad Diego Portales</i>	
R. Quezada. "Reconocimiento de expresiones faciales a través de redes neuronales convolucionales." Degree: Undergraduate.	2016
<i>Universidad Diego Portales</i>	
F. Troncoso. "Aplicación móvil con sistema de recomendación de ítems de antropología para el Museo Nacional de Historia Natural." Degree: Undergraduate. (Co-advised with Dr. Javier Pereira)	2016
<i>Universidad Diego Portales</i>	
C. Valderrama. "Complemento de recomendación de código para apoyar la instanciación de frameworks." Degree: Undergraduate. (Co-advised with Dr. David Röthlisberger)	2015
<i>Universidad Diego Portales</i>	
F. Bustos. "Propuesta de descriptor híbrido (Geométrico y de Apariencia) para la clasificación de expresiones como patrones temporales." Degree: Undergraduate.	2014
<i>Universidad Diego Portales</i>	
R. Fuenzalida. "Propuesta de descriptor basado en partes para el reconocimiento de expresiones y objetos en secuencias de imágenes." Degree: Undergraduate.	2014
<i>Universidad Diego Portales</i>	
M. Rodríguez. "Reconocimiento de expresiones faciales en imágenes dinámicas utilizando un descriptor basado en rayos de flujo." Degree: Undergraduate.	2014

## Funding

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### Grants

- G1. **Principal Investigator.** "Learning Representations through Deep Generative Models on Video." *São Paulo Research Foundation (FAPESP)* No. 2019/07257-3 (time frame: 2 years). Sept. 2020.
- G2. **Principal Investigator.** "Methodologies for Video Analysis based on Neural Networks." *Productivity Researcher (level 2), National Council for Scientific and Technological Development (CNPq)* No. 307425/2017-7 (time frame: 3 years). Mar. 2018.
- G3. **Principal Investigator.** "Development of Recurrent Convolutional Neural Network Architectures for Facial Expression Recognition." *São Paulo Research Foundation (FAPESP)* No. 2016/19947-6 (time frame: 2 years). Jan. 2017.
- G4. **Principal Investigator.** "Auxílio Início de Carreira (Docente)." *FAEPEX, UNICAMP* No. 3237/16 (time frame: 1 year). Sept. 2016.
- G5. **Alternating Investigator.** "RACCONTO: Recomendación y perfilamiento de piezas de museo basados en sensibilidad al contexto de usuario y ontologías culturales." *FONDEF* No. ID14I10017 (time frame: 2 years). Nov. 2014.
- G6. **Principal Investigator.** "Design and Implementation of Spatiotemporal Local Directional Patterns for Facial Expression Recognition." *FONDECYT de Iniciación Investigación* No. 11130098 (time frame: 3 years). Oct. 2013.

## Other Funding

- O1. **Principal Investigator.** “Visual Question Answering task with Graph Convolution Networks.” *MSc Scholarship, São Paulo Research Foundation (FAPESP)* No. 2020/14452-4 (time frame: 2 years). Apr. 2021.
- O2. **Principal Investigator.** “Semantic Segmentation based on Variational Methods.” *MSc Scholarship, São Paulo Research Foundation (FAPESP)* No. 2019/08589-0 (time frame: 2 years). Sept. 2019.
- O3. **Principal Investigator.** “Travel Grant ICML.” *São Paulo Research Foundation (FAPESP)* No. 2019/11029-6. June 2019.
- O4. **Principal Investigator.** “An Attentional Model for Videos Classification.” *MSc Scholarship, São Paulo Research Foundation (FAPESP)* No. 2018/10027-7 (time frame: 2 years). Dec. 2018.
- O5. **Principal Investigator.** “Video-to-Video Dynamics Transfer with Deep Generative Models.” *PhD Scholarship, São Paulo Research Foundation (FAPESP)* No. 2017/16144-2 (time frame: 3 years). Aug. 2018.
- O6. “NVIDIA GPU Grant.” *NVIDIA Corporation*. May 2018.
- O7. **Principal Investigator.** “Semantic Segmentation on Videos.” *PhD Scholarship, São Paulo Research Foundation (FAPESP)* No. 2017/16597-7 (time frame: 3 years). Nov. 2017.
- O8. “NVIDIA GPU Grant.” *NVIDIA Corporation*. Apr. 2017.
- O9. “Visiting Expert Grant (Concurso Traída Expertos).” *Facultad de Ingeniería, Universidad Diego Portales*. Aug. 2015.
- O10. “Travel Support Grant 2015 (Concurso Apoyo a Viajes 2015).” *Facultad de Ingeniería, Universidad Diego Portales*. Apr. 2015.
- O11. “Travel Support Grant 2014 (Concurso Apoyo a Viajes 2014).” *Facultad de Ingeniería, Universidad Diego Portales*. Aug. 2014.
- O12. “Travel Support Grant 2014 (Concurso Apoyo a Viajes 2014).” *Vicerrectoria, Universidad Diego Portales* No. 370/2014. Aug. 2014.
- O13. “Research Assistant Grant (Fondo Ayudante de Investigación).” *Facultad de Ingeniería, Universidad Diego Portales*. July 2014.

## Publications

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### Journals

- J1. J. Hernández Albarracín and **A. Ramírez Rivera**. “Video Reenactment as Inductive Bias for Content-Motion Disentanglement.” In: *IEEE Transactions on Image Processing* (2022). DOI: 10.1109/TIP.2022.3153140.
- J2. S. Robles, J. Gómez, **A. Ramírez Rivera**, N. Padilla, and D. Dujovne. “A Deep Learning Approach to Halo Merger Tree Construction.” In: *Monthly Notices of the Royal Astronomical Society* (2022). DOI: 10.1093/mnras/stac1569.
- J3. D. Saire and **A. Ramírez Rivera**. “Global and Local Features through Gaussian Mixture Models on Image Semantic Segmentation.” In: *IEEE Access* (2022). DOI: 10.1109/ACCESS.2022.3192605.

- J4. M. Rodríguez Santander, J. Hernández Albarracín, and **A. Ramírez Rivera**. “On the Pitfalls of Learning with Limited Data: A Facial Expression Recognition Case Study.” In: *Experts Systems with Applications* (2021). DOI: 10.1016/j.eswa.2021.114991.
- J5. D. Saire and **A. Ramírez Rivera**. “Empirical Study of Multi-Task Hourglass Model for Semantic Segmentation Task.” In: *IEEE Access* 9 (2021), pp. 80654–80670. DOI: 10.1109/ACCESS.2021.3085218.
- J6. M. T. B. Iqbal, B. Ryu, **A. Ramírez Rivera**, F. Makhmudkhujaev, O. Chae, and S. H. Bae. “Facial Expression Recognition with Active Local Shape Pattern and Learned-Size Block Representations.” In: *IEEE Transactions on Affective Computing* (2020). DOI: 10.1109/TAFFC.2020.2995432.
- J7. **A. Ramírez Rivera**, A. Khan, I. Bekkouch, and T. Sheikh. “Anomaly Detection based on Zero-Shot Outlier Synthesis and Hierarchical Feature Distillation.” In: *IEEE Transactions on Neural Networks and Learning Systems* (2020). DOI: 10.1109/TNNLS.2020.3027667.
- J8. R. Quispe, D. Ttito, **A. Ramírez Rivera**, and H. Pedrini. “Multi-Stream Networks and Ground-Truth Generation for Crowd Counting.” In: *International Journal of Electrical and Computer Engineering Systems* 11 (2020), pp. 25–33. ISSN: 1847-6996.
- J9. B. Ryu, **A. Ramírez Rivera**, J. Kim, and O. Chae. “Local Directional Ternary Pattern for Facial Expression Recognition.” In: *IEEE Transactions on Image Processing* 26 (2017), pp. 6006–6018. ISSN: 1057-7149. DOI: 10.1109/TIP.2017.2726010.
- J10. **A. Ramírez Rivera**, J. Rojas Castillo, and O. Chae. “Local Directional Texture Pattern Image Descriptor.” In: *Pattern Recognition Letters* 51 (2015), pp. 94–100. ISSN: 0167-8655. DOI: 10.1016/j.patrec.2014.08.012. URL: <http://www.sciencedirect.com/science/article/pii/S0167865514002724>.
- J11. **A. Ramírez Rivera** and O. Chae. “Spatiotemporal Directional Number Transitional Graph for Dynamic Texture Recognition.” In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 37 (2015), pp. 2146–2152. ISSN: 0162-8828. DOI: 10.1109/TPAMI.2015.2392774.
- J12. **A. Ramírez Rivera**, J. Rojas Castillo, and O. Chae. “Local Directional Number Pattern for Face Analysis: Face and Expression Recognition.” In: *IEEE Transactions on Image Processing* 22 (2013), pp. 1740–1752. ISSN: 1057-7149. DOI: 10.1109/TIP.2012.2235848.
- J13. **A. Ramírez Rivera**, M. Murshed, J. Kim, and O. Chae. “Background Modeling Through Statistical Edge-Segment Distributions.” In: *IEEE Transactions on Circuits and Systems for Video Technology* 23 (Aug. 2013), pp. 1375–1387. ISSN: 1051-8215. DOI: 10.1109/TCSVT.2013.2242551.
- J14. J. Kim, M. Murshed, **A. Ramírez Rivera**, and O. Chae. “Background Modelling Using Edge-Segment Distributions.” In: *International Journal of Advanced Robotic Systems* (Feb. 2013). DOI: 10.5772/54185.
- J15. J. Rojas Castillo, **A. Ramírez Rivera**, and O. Chae. “Robust Facial Recognition Based on Local Gaussian Structural Pattern.” In: *International Journal of Innovative Computing, Information and Control* 8 (Dec. 2012), pp. 8399–8413.
- J16. **A. Ramírez Rivera**, B. Ryu, and O. Chae. “Content-Aware Dark Image Enhancement through Channel Division.” In: *IEEE Transactions on Image Processing* 21 (Sept. 2012), pp. 3967–3980. DOI: 10.1109/TIP.2012.2198667.

- J17. M. Murshed, **A. Ramírez Rivera**, J. Kim, and O. Chae. “Statistical Binary Edge Frequency Accumulation Model for Moving Object Detection.” In: *International Journal of Innovative Computing, Information and Control* 8 (July 2012), pp. 4943–4957.
- J18. M. Murshed, **A. Ramírez Rivera**, and O. Chae. “Moving Edge Segment Matching for the Detection of Moving Object.” In: *Lecture Notes in Computer Science* 6753 (June 2011), pp. 274–283. DOI: 10.1007/978-3-642-21593-3\_28.

## Conferences.....

- C1. T. Silva, H. Pedrini, and **A. Ramírez Rivera**. “Self-Organizing Visual Prototypes for Non-Parametric Representation Learning.” In: *International Conference on Machine Learning (ICML)*. 2025.
- C2. M. Aasan, O. Kolbjørnsen, A. Schistad Solberg, and **A. Ramírez Rivera**. “A Spitting Image: Modular Superpixel Tokenization in Vision Transformers.” In: *CVF/ECCV More Exploration, Less Exploitation Workshop (MELEX ECCVW)*. 2024.
- C3. T. Silva, H. Pedrini, and **A. Ramírez Rivera**. “Learning from Memory: A Non-Parametric Memory Augmented Self-Supervised Learning of Visual Features.” In: *International Conference on Machine Learning (ICML)*. 2024.
- C4. P. Kenfack, **A. Ramírez Rivera**, A. Khan, and M. Mazzara. “Learning Fair Representations through Uniformly Distributed Sensitive Attributes.” In: *IEEE Conference on Secure and Trustworthy Machine Learning (SaTML)*. 2023.
- C5. K. Sabbagh, P. Kenfack, **A. Ramírez Rivera**, and A. Khan. “RepFair-GAN: Mitigating Representation Bias in GANs Using Gradient Clipping.” In: *Tiny Papers Workshop (ICLRW)*. 2023.
- C6. T. Silva, H. Pedrini, and **A. Ramírez Rivera**. “Self-supervised Learning of Contextualized Local Visual Embeddings.” In: *Visual Inductive Priors for Data-Efficient Deep Learning Workshop (ICCVW)*. 2023.
- C7. T. Silva and **A. Ramírez Rivera**. “Representation Learning via Consistent Assignment of Views over Random Partitions.” In: *Advances in Neural Information Processing Systems (NeurIPS)*. 2023.
- C8. V. Sini, **A. Ramírez Rivera**, and A. Khan. “Understanding the Effectiveness of Cross-Domain Contrastive Unsupervised Domain Adaptation.” In: *Tiny Papers Workshop (ICLRW)*. 2023.
- C9. B. Souza, M. Aasan, H. Pedrini, and **A. Ramírez Rivera**. “SelfGraphVQA: A Self-Supervised Graph Neural Network for Scene-based Question Answering.” In: *Vision-and-Language Algorithmic Reasoning (VLAR) Workshop (ICCVW)*. (Oral, best paper award). 2023.
- C10. T. Silva and **A. Ramírez Rivera**. “Representation Learning via Consistent Assignment of Views to Clusters.” In: *ACM/SIGAPP Symposium on Applied Computing (SAC)*. 2022. DOI: 10.1145/3477314.3507267.
- C11. A. Khusainova, A. Khan, **A. Ramírez Rivera**, and V. Romanov. “Hierarchical Transformer for Multilingual Machine Translation.” In: *VarDial—Workshop on NLP for Similar Languages, Varieties and Dialects*. 2021.
- C12. T. Silva and **A. Ramírez Rivera**. “Consistent Assignment for Representation Learning.” In: *Energy-based Models Workshop (ICLRW)*. 2021.



- C13. G. Nikolentzos, M. Thomas, **A. Ramírez Rivera**, and M. Vazirgiannis. “Image Classification using Graph-based Representations and Graph Neural Networks.” In: *International Conference Complex Networks and their Applications*. Dec. 2020.
- C14. M. V. S. Silva, L. Bittencourt, and **A. Ramírez Rivera**. “Towards Federated Learning in Edge Computing for Real-Time Traffic Estimation in Smart Cities.” In: *Workshop of Urban Computation (CoUrb)*. Dec. 2020. DOI: 10.5753/courb.2020.12361.
- C15. B. Kim, **A. Ramírez Rivera**, O. Chae, and J. Kim. “Background Modeling through Spatiotemporal Edge Feature and Color.” In: *International Symposium on Visual Computing (ISVC)*. Oct. 2019. DOI: 10.1007/978-3-030-33723-0\_16.
- C16. S. Robles, J. Gómez, **A. Ramírez Rivera**, J. González, N. Padilla, and D. Dujovne. “A Halo Merger Tree Generation and Evaluation Framework.” In: *Workshop on Theoretical Physics for Deep Learning (ICMLW)*. June 2019.
- C17. D. Saire and **A. Ramírez Rivera**. “Graph Learning Network: A Structure Learning Algorithm.” In: *Workshop on Learning and Reasoning with Graph-Structured Data (ICMLW)*. (Spotlight). June 2019.
- C18. D. Ttito, R. Quispe, **A. Ramírez Rivera**, and H. Pedrini. “Where are the People? A Multi-Stream Convolutional Neural Network for Crowd Counting via Density Map from Complex Images.” In: *International Conference on Systems, Signals and Image Processing (IWSSIP)*. June 2019. DOI: 10.1109/IWSSIP.2019.8787217.
- C19. A. Khusainova, A. Khan, and **A. Ramírez Rivera**. “SART—Similarity, Analogies, and Relatedness for Tatar Language: New Benchmark Datasets for Word Embeddings Evaluation.” In: *International Conference on Computational Linguistics and Intelligent Text Processing (CICLing)*. Apr. 2019.
- C20. P. Zhdanov, A. Khan, **A. Ramírez Rivera**, and A. Khattak. “Improving Human Action Recognition through Hierarchical Neural Network Classifiers.” In: *International Joint Conference on Neural Networks (IJCNN)*. July 2018. DOI: 10.1109/IJCNN.2018.8489663.
- C21. J. Arias Figueroa and **A. Ramírez Rivera**. “Is Simple Better?: Revisiting Simple Generative Models for Unsupervised Clustering.” In: *Second workshop on Bayesian Deep Learning (NIPS 2017)*. Dec. 2017.
- C22. J. Arias Figueroa and **A. Ramírez Rivera**. “Learning to Cluster with Auxiliary Tasks: A Semi-Supervised Approach.” In: *31th SIBGRAPI Conference on Graphics, Patterns and Images, SIBGRAPI 2017*. Oct. 2017, pp. 1–8. DOI: 10.1109/SIBGRAPI.2017.25.
- C23. A. Dobrenkii, R. Kuleev, A. Khan, **A. Ramírez Rivera**, and A. Khattak. “Large Residual Multiple View 3D CNN for False Positive Reduction in Pulmonary Nodule Detection.” In: *IEEE International Conference on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB)*. IEEE, Aug. 2017. DOI: 10.1109/CIBCB.2017.8058549.
- C24. M. Gusarev, R. Kuleev, A. Khan, **A. Ramírez Rivera**, and A. Khattak. “Deep Learning Models for Bone Suppression in Chest Radiographs.” In: *IEEE International Conference on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB)*. IEEE, Aug. 2017. DOI: 10.1109/CIBCB.2017.8058543.

- C25. J. Kim, **A. Ramírez Rivera**, B. Kim, K. Roy, and O. Chae. “Background Modeling using Adaptive Properties of Hybrid Features.” In: *IEEE International Conference on Advanced Video and Signal-Based Surveillance (AVSS)*. IEEE, Aug. 2017. DOI: 10.1109/AVSS.2017.8078475.
- C26. S. Hong, J. Kim, **A. Ramírez Rivera**, G. Song, and O. Chae. “Edge Shape Pattern for Background Modeling based on Hybrid Local Codes.” In: *IEEE International Conference on Advanced Video and Signal-Based Surveillance (AVSS)*. Aug. 2016. DOI: 10.1109/AVSS.2016.7738015.
- C27. J. Kim, **A. Ramírez Rivera**, B. Ryu, and O. Chae. “Simultaneous foreground detection and classification with hybrid features.” In: *IEEE International Conference on Computer Vision (ICCV)*. 2015, pp. 3307–3315. DOI: 10.1109/ICCV.2015.378.
- C28. J. Kim, **A. Ramírez Rivera**, B. Ryu, K. Ahn, and O. Chae. “Unattended object detection based on edge-segment distributions.” In: *IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS)*. Aug. 2014, pp. 283–288. DOI: 10.1109/AVSS.2014.6918682.
- C29. J. Kim, **A. Ramírez Rivera**, G. Song, B. Ryu, and O. Chae. “Edge-segment-based Background Modeling: Non-parametric online background update.” In: *IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS)*. Aug. 2013, pp. 214–219. DOI: 10.1109/AVSS.2013.6636642.
- C30. **A. Ramírez Rivera**, J. Rojas Castillo, and O. Chae. “Local Gaussian Directional Pattern for Face Recognition.” In: *International Conference on Pattern Recognition (ICPR)*. Nov. 2012, pp. 1000–1003.
- C31. **A. Ramírez Rivera**, J. Rojas Castillo, and O. Chae. “Recognition of Face Expressions Using Local Principal Texture Pattern.” In: *International Conference on Image Processing (ICIP)*. Oct. 2012, pp. 2609–2612. DOI: 10.1109/ICIP.2012.6467433.
- C32. J. Rojas Castillo, **A. Ramírez Rivera**, and O. Chae. “Facial Expression Recognition Based on Local Sign Directional Pattern.” In: *International Conference on Image Processing (ICIP)*. Oct. 2012, pp. 2613–2616. DOI: 10.1109/ICIP.2012.6467434.
- C33. J. Kim, **A. Ramírez Rivera**, M. Park, and O. Chae. “Scene Modeling using Edge Segment Distributions.” In: *International Conference on Image Processing, Computer Vision, and Pattern Recognition (IPCV)*. July 2012.
- C34. **A. Ramírez Rivera**, M. Murshed, and O. Chae. “Object Detection through Edge Behavior Modeling.” In: *IEEE International Conference on Advanced Video and Signal-Based Surveillance (AVSS)*. Aug. 2011, pp. 273–278. DOI: 10.1109/AVSS.2011.6027336.
- C35. M. Murshed, **A. Ramírez Rivera**, and O. Chae. “Statistical Background Modeling: An Edge Segment based Moving Object Detection Approach.” In: *IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS)*. Aug. 2010, pp. 300–306. DOI: 10.1109/AVSS.2010.18.

## Other Appointments

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### Memberships

ELLIS Member.	2024–pres.
IEEE Senior Member.	2021–pres.

Member of the International Network of Science, Technology, and Innovation of Guatemala. 2017–pres.

Computer Vision Foundation Member. 2015–pres.

IEEE Member. 2012–2021

**International Reviewer**.....

List of journals and venues: <https://www.webofscience.com/wos/author/record/L-9388-2016>. Web of Science

**Area Chair**.....

Conference on Artificial Intelligence (AAAI). 2024

International Conference on Artificial Intelligence and Statistics (AISTATS). 2024

International Conference on Learning Representations (ICLR). 2023–2024

International Conference on Machine Learning (ICML). 2023–2025

Asian Conference on Machine Learning (ACML). 2022–2024

Conference on Neural Information Processing Systems (NeurIPS). 2022

**Program Chair**.....

Beyond Euclidean Workshop: Hyperbolic and Hyperspherical Learning for Computer Vision (BEW). 2024–2025

Northern Lights Deep Learning Conference (NLDL). 2023–pres.

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## Languages

**Spanish:** Advanced *Native language*

**English:** Advanced *Speaking, reading, and writing*

**Portuguese:** Intermediate *Speaking, reading, and writing*

**Korean:** Basic *Speaking, reading, and writing*