MAIKO M. I. LIE

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EDUCATION

2018 – current PhD student in Computer Science, Federal University of Minas Gerais, Brazil.

2018 MSc. degree in Computer Engineering, Federal University of Technology – Paraná, Brazil.
Thesis: *An Efficient Strategy for Estimation of Visually Salient Regions in Images*

2016 B.E. degree in Computer Engineering, Federal University of Technology – Paraná, Brazil.
Thesis: *A Platform for Development of Analytical Telerobotics*

PROFESSIONAL EXPERIENCE

2018 – current **Federal University of Minas Gerais, Brazil**. PhD student at the *Smart Sense Laboratory*. Research and development in visual pattern recognition, focused on video analytics (2018–2019, under a project for Maxtrack), biometrics (2019–2021, under a project for Petrobras), and data analysis of geophysical data (2021–current, under a project for Petrobras).

2016 – 2018 **Federal University of Technology – Paraná, Brazil.** Master's student at the *Imaging and Electronic Instrumentation Laboratory*, with a fellowship from the Brazilian Coordination for the Improvement of Higher Education Personnel (CAPES). Research on biologically motivated computer vision algorithms.

2014 – 2015 **Federal University of Technology – Paraná, Brazil.** Undergraduate research assistant at the *Imaging and Electronic Instrumentation Laboratory*, with a fellowship from the Araucária Foundation. Research on biologically motivated computer vision algorithms.

2013 – 2014 **Federal University of Technology – Paraná, Brazil.** Undergraduate research assistant, with a scholarship from the Brazilian National Council for Scientific and Technological Development (CNPq). Research on the optimization of a discrete event simulation software library.

2012 – 2013 **Federal University of Technology – Paraná, Brazil.** Undergraduate research assistant. Development of a microcontrolled biomedical system for infusion pump calibration.

LANGUAGES

Portuguese Advanced reading, writing and speaking. Native proficiency.

English Advanced reading and writing, intermediate speaking. TOEFL ITP Test score (2014): 670/677. Proficient User/Effective Operational Efficiency according to the Common European Framework of Reference for Languages (CEFR).

PROFESSIONAL SERVICE ACTIVITY

Journal Reviewer

2022 – current IEEE Transactions on Neural Networks and Learning Systems
2021 – current IEEE Transactions on Image Processing
2019 – current IEEE Transactions on Information Forensics and Security
2019 – current The Visual Computer (Springer Nature)

Conference Reviewer

2022 IAPR International Conference Pattern Recognition
2021 IEEE International Conference on Automatic Face and Gesture Recognition
2020, 2021 IEEE Winter Conference on Applications in Computer Vision

PUBLICATIONS

Conference papers

2020 | JORDAO, A.; LIE, M.; DE MELO, V. H. C.; SCHWARTZ, W. R. **Covariance-Free Partial Least Squares: An Incremental Dimensionality Reduction Method**. IEEE Winter Conference on Applications of Computer Vision (WACV).

JORDAO, A.; AKIO, F.; LIE, M.; SCHWARTZ, W. R. **Depth-Wise Neural Architecture Search**. International Conference on Pattern Recognition (ICPR).

2017 | LIE, M. M. I.; VIEIRA NETO, H.; BORBA, G. B.; GAMBA, H. R. **Progressive Saliency-Oriented Object Localization Based on Interlaced Random Color Distance Maps**. Latin American Robotics Symposium (LARS).

2016 | LIE, M. M. I.; VIEIRA NETO, H.; BORBA, G. B.; GAMBA, H. R. **Automatic Image Thumbnailing Based on Fast Visual Saliency Detection**. Brazilian Symposium on Multimedia and the Web (WebMedia).

LIE, M. M. I.; BORBA, G. B.; VIEIRA NETO, H.; GAMBA, H. R. **Fast Saliency Detection Using Sparse Random Color Samples and Joint Upsampling**. Conference on Graphics, Patterns and Images (SIBGRAPI). *Awarded an Honorable Mention*.

Journal papers

2020 | JORDAO, A.; LIE, M.; SCHWARTZ, W. R. **Discriminative Layer Pruning for Convolutional Neural Networks**. IEEE Journal of Selected Topics in Signal Processing.

2017 | LIE, M. M. I.; BORBA, G. B.; VIEIRA NETO, H.; GAMBA, H. R. **Joint Upsampling of Random Color Distance Maps for Fast Salient Region Detection**. Pattern Recognition Letters.

KREFER, A. G.; LIE, M. M. I.; BORBA, G. B.; GAMBA, H. R.; ABREU DE SOUZA, M. **A Method for Generating 3D Thermal Models with Decoupled Acquisition**. Computer Methods and Programs in Biomedicine.

AWARDS

2016 | Honorable Mention for the paper **"Fast Salency Detection Using Sparse Random Color Samples and Joint Upsampling"**, at the 29th Conference on Graphics, Patterns and Images (SIBGRAPI).