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

Samsung R&D Institute, Brazil

2022 – current | Senior Researcher. Research and development of AI solutions for health applications.

Federal University of Minas Gerais, Brazil

2021 – 2022 | Research assistant. Data analysis of geophysical data for stratigraphic modeling, under a project for Brazilian Petroleum Corporation — *Petrobras*.

2019 – 2021 | Research assistant. Research and development in visual pattern recognition, focused on biometrics for surveillance, under a project for Brazilian Petroleum Corporation — *Petrobras*.

2018 – 2019 | Research assistant. Research and development in visual pattern recognition, focused on video analytics for vehicle cabin monitoring, under a project for *Maxtrack*.

2018 – current | PhD student at the *Smart Sense Laboratory*. Research and development in visual pattern recognition for forensics and biometrics.

Federal University of Technology – Paraná, Brazil

2016 – 2018	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 perception-based algorithms for accelerating computer vision tasks.
2014 – 2015	Undergraduate research assistant at the *Imaging and Electronic Instrumentation Laboratory*, with a fellowship from the Araucária Foundation. Research on perception-based algorithms for accelerating computer vision tasks.
2013 – 2014	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	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, fluent 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

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).