MAIKO M. I. LIE

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Last updated Ago 2022

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 at the AI R&D Lab. 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 the Brazilian Petroleum Corporation — *Petrobras*.

2019 – 2021 | Research assistant. Research and development in visual pattern recognition, focused on biometrics for surveillance, under a project for the 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 – 2022	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).