

Julian Jorge Andrade Guerreiro

✉ julian-guerreiro@g.ecc.u-tokyo.ac.jp • 🌐 julianguerreiro.github.io

Education

Ph.D. <i>The University of Tokyo</i> Member of the Machine Perception Group (Advisor: Prof. Hideki Nakayama)	Tokyo, Japan 2023/04 – 2026/03
Master of Science <i>Keio University</i> Member of Aoki Media Sensing Lab. conducting Computer Vision research Thesis: Detecting Osteoarthritis from Multimodal Hand Data (Advisor: Prof. Yoshimitsu Aoki)	Tokyo, Japan 2020/10 – 2022/03
Master of Science <i>RWTH Aachen University</i> Specialization: Computer Engineering	Aachen, Germany 2019/10 – 2023/02
Bachelor of Science <i>RWTH Aachen University</i> Specialization: Information and Communications Engineering Thesis: Optimal Orientation of Cube Faces for 360-degree Video Coding (Advisor: Prof. Jens Ohm)	Aachen, Germany 2016/10 – 2019/09

Experience

University of Tokyo <i>Research Assistant</i> Joint research with CyberAgent AI Lab researching layout generation and generative models	Tokyo, Japan 2023/05 – present
LY Corporation <i>Part-Time Researcher</i> Continuing my work on unsupervised detection of AI-generated images	Tokyo, Japan 2025/01 – present
LY Corporation <i>Full-Time Research Internship</i> Working on unsupervised detection of AI-generated images using likelihood estimation	Tokyo, Japan 2024/08 – 2024/10
Preferred Networks <i>Full-Time Research Internship (2 months) and Part-Time Researcher</i> Member of the Machine Learning Theory team researching video prediction and world models	Tokyo, Japan 2023/08 – 2023/09
Rakuten Institute of Technology, Rakuten Group Inc. <i>Computer Vision Research Scientist (Full-Time Internship)</i> ○ Conducted independent research in the field of Computer Vision (Image Harmonization) ○ Presented and published research results at a top-conference (CVPR)	Tokyo, Japan 2022/04 – 2022/12

Skills

Programming: Python, C/C++, PyTorch, OpenCV, Pandas, CUDA, MATLAB
Tools: Docker, Kubernetes, Google Cloud Platform, Confluence, Git, Unix
Knowledge: Computer Vision, Machine Learning, Deep Learning, Data Science, Signal Processing, Information Theory, Computer Graphics, Control Theory, Robotics

Languages

German: Native
Portuguese: Native
English: Full professional proficiency (TOEFL iBT: 112/120)
Japanese: Limited Working Proficiency (JLPT N2)

Publications

LayoutFlow: Flow Matching for Layout Generation

Julian Jorge Andrade Guerreiro, Naoto Inoue, Kento Masui, Mayu Otani, Hideki Nakayama
European Conference on Computer Vision (ECCV), 2024

PCT-Net: Full Resolution Image Harmonization Using Pixel-Wise Color Transformations

Julian Jorge Andrade Guerreiro, Mitsuru Nakazawa, Bjorn Stenger
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023

Detection of Osteoarthritis from Multimodal Hand Data

Julian Jorge Andrade Guerreiro, Shuntaro Saito, Katsuya Suzuki, Yoshimitsu Aoki
IEEE Engineering in Medicine and Biology (EMBC), 2022

Inter-Environmental World Modeling for Continuous and Compositional Dynamics

Kohei Hayashi, Masanori Koyama, Julian Jorge Andrade Guerreiro
arXiv:2503.09911, 2025

Reviewing

Journal: IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

Conferences: CVPR (2024, 2025), ICCV (2025), SIGGRAPH (2025), NeurIPS (2025)