Julian Jorge Andrade Guerreiro

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

Education

Ph.D.	**Tokyo, Japan**
The University of Tokyo	*2023/04 – 2026/03*

Member of the Machine Perception Group (Advisor: Prof. Hideki Nakayama)

Master of Science	**Tokyo, Japan**
Keio University	*2020/10 – 2022/03*

Member of Aoki Media Sensing Lab. conducting Computer Vision research
Thesis: Detecting Osteoarthritis from Multimodal Hand Data (Advisor: Prof. Yoshimitsu Aoki)

Master of Science	**Aachen, Germany**
RWTH Aachen University	*2019/10 – 2023/02*

Specialization: Computer Engineering

Bachelor of Science	**Aachen, Germany**
RWTH Aachen University	*2016/10 – 2019/09*

Specialization: Information and Communications Engineering
Thesis: Optimal Orientation of Cube Faces for 360-degree Video Coding (Advisor: Prof. Jens Ohm)

Experience

University of Tokyo	**Tokyo, Japan**
Research Assistant	*2023/05 – present*

Joint research with CyberAgent AI Lab researching layout generation and generative models

LY Corporation	**Tokyo, Japan**
Part-Time Researcher	*2025/01 – present*

Continuing my work on unsupervised detection of AI-generated images

LY Corporation	**Tokyo, Japan**
Full-Time Research Internship	*2024/08 – 2024/10*

Working on unsupervised detection of AI-generated images using likelihood estimation

Preferred Networks	**Tokyo, Japan**
Full-Time Research Internship (2 months) and Part-Time Researcher	*2023/08 – 2023/09*

Member of the Machine Learning Theory team researching video prediction and world models

Rakuten Institute of Technology, Rakuten Group Inc.	**Tokyo, Japan**
Computer Vision Research Scientist (Full-Time Internship)	*2022/04 – 2022/12*

- ○ Conducted independent research in the field of Computer Vision (Image Harmonization)
- ○ Presented and published research results at a top-conference (CVPR)

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