

# Julian Jorge Andrade Guerreiro

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

## Education

---

<b>Ph.D.</b> <i>The University of Tokyo (GPA: 4.0)</i> Member of the Machine Perception Group (Advisor: Prof. Hideki Nakayama)	<b>Tokyo, Japan</b> 2023/04 – 2026/03
<b>Master of Science</b> <i>Keio University (GPA: 3.87)</i> Member of Aoki Media Sensing Lab. conducting Computer Vision research Thesis: Detecting Osteoarthritis from Multimodal Hand Data (Advisor: Prof. Yoshimitsu Aoki)	<b>Tokyo, Japan</b> 2020/10 – 2022/03
<b>Master of Science</b> <i>RWTH Aachen University (GPA: 3.6)</i> Specialization: Computer Engineering	<b>Aachen, Germany</b> 2019/10 – 2023/02
<b>Bachelor of Science</b> <i>RWTH Aachen University (GPA: 2.6)</i> Specialization: Information and Communications Engineering Thesis: Optimal Orientation of Cube Faces for 360-degree Video Coding (Advisor: Prof. Jens Ohm)	<b>Aachen, Germany</b> 2016/10 – 2019/09

## Experience

---

<b>University of Tokyo</b> <i>Research Assistant</i> Joint research with CyberAgent AI Lab using multimodal data in the context of layout prediction	<b>Tokyo, Japan</b> 2023/05 – present
<b>Preferred Networks</b> <i>Part-Time Researcher</i> Continued research on video prediction started as an intern	<b>Tokyo, Japan</b> 2023/10 – 2024/03
<b>Preferred Networks</b> <i>Research Internship (Full-Time)</i> Member of the Machine Learning Theory team researching video prediction	<b>Tokyo, Japan</b> 2023/08 – 2023/09
<b>Rakuten Institute of Technology, Rakuten Group Inc.</b> <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)	<b>Tokyo, Japan</b> 2022/04 – 2022/12
<b>Chair for Communications Engineering</b> <i>Student Research Assistant</i> Developed analysis tools for 360 degree video coding statistics with Pandas and Matplotlib	<b>Aachen, Germany</b> 2019/11 – 2020/02

## Publications

---

### LayoutFlow: Flow Matching for Layout Generation

Julian Jorge Andrade Guerreiro, Naoto Inoue, Kento Masui, Mayu Otani, Hideki Nakayama  
arXiv, 2024 (<https://arxiv.org/abs/2403.18187>)

### 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), Vancouver, June 2023, pp. 5917-5926

### Detection of Osteoarthritis from Multimodal Hand Data

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

## 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

## Scholarships

---

2020/05 – 2022/09: Friedrich Ebert Foundation

2020/10 – 2022/03: DAAD Scholarship for Graduate Education

## Languages

---

**German:** Native

**Portuguese:** Native

**English:** Full professional proficiency (TOEFL iBT: 112/120)

**Japanese:** Limited Working Proficiency (JLPT N2)