

Gabriel Araujo

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EXPERIENCE

Position: Graduate Researcher

Apr 2023 - Present

Supervised by Professor Xiaohui Xie, PhD at University of California - Irvine

- Developed optimization framework for image registration based on state-of-the-art Vision Transformers models; [current project pre-print](#)
- Developing new project based on a Specialist-Model approach for Image Registration; using state-of-the-art Vision Transformers
- Developing a Generative Hand-Object-Interaction Diffusion model for denoising HOI interaction sequences

Position: Undergraduate Researcher

Mar 2020 - Jan 2021

Supervised by Professor Paulo Miranda, PhD at University of Sao Paulo

- Developed a segmentation model utilizing both the quasi-flat zone and max-tree data-structures
- Extensive use of C++ image processing and optimization libraries for parallel processing of data structures

Position: Undergraduate Researcher

Apr 2019 - Aug 2020

Supervised by Professor Hae Yong Kim, PhD at University of Sao Paulo

- Co-author of [published paper](#) at ASCO (American Society of Clinical Oncology)
- Implemented transfer-learning methods on local neural networks, utilizing Keras/PyTorch packages for the general framework
- Responsible for development of image pre-processing techniques for maximizing efficiency in batch image training

Position: Undergraduate Researcher

Jun 2018 - Mar 2019

Supervised by Professor Roberto Hirata, PhD at University of Sao Paulo

- Development for a neural network implementation for a tree and electrical wire entanglement detection
- Utilized the Keras package for the general framework
- Outperformed mathematical morphology implementation with a convolutional neural network approach

EDUCATION

2022 - Present MSc in Computer Science at **University of California, Irvine** (GPA: 3.95/4.0)
2017 - 2021 BSc in Computer Science at **University of Sao Paulo** (GPA: 3.0/4.0)

SKILLS

Technical Skills Computer Vision, Machine Learning, AI, PyTorch, Data Science, Linux, CLI
Programming Languages Python, Rust, Bash, C, C++, Java
Languages Portuguese (Native), English (Fluent), Spanish (Fluent)