

FELIPE CADAR CHAMONE

Graduating and Researcher

@ cadar@dcc.ufmg.br +55 31 99292-9842 BH, Minas Gerais, Brasil <https://homepages.dcc.ufmg.br/cadar/> github.com/cadar-dcc
in <https://www.linkedin.com/in/felipe-cadar-chamone-086578135/>

I am a graduate student in computer science at the Federal University of Minas Gerais (UFMG). I have been doing scientific initiation at the Laboratory of Computer Vision and Robotics (VeRLab) since I joined the course in the first semester of 2016. I really enjoy doing scientific research and would love to see my work to have a positive impact on someone's life.

EXPERIENCE

Scientific research

VeRLab - Laboratory of Computer Vision and Robotics

📅 April 2016 – Today

📍 UFMG, Belo Horizonte, Minas Gerais

- Comprehensive Knowledge in Computer Vision
- Good knowledge in image processing (OpenCV, camera calibration) and Mobile robotics (ROS)
- Experience with Convolutional Neural Networks (CNN)
- Good knowledge of Linux (Ubuntu)
- Experience with Git, ROS, Unity, Caffe and WordPress
- Good video editing skills ([Example](#))

PROJECTS

Semantic Hyperlapse

VeRLab

📅 April 2016 – September 2018

📍 UFMG, Belo Horizonte, Minas Gerais

In this project, I was part of a team developing a semantic fast-forward method for first-person videos. Our goal was to accelerate extremely long and unstable first-person videos to emphasize important parts while maintaining smooth motion. We also proposed an 80-hour Dataset of Multimodal Semantic Egocentric Videos (DoMSEV). More info in <https://www.verlab.dcc.ufmg.br/semantic-hyperlapse/>

Keywords: Semantic Hyperlapse Sparse Coding Convolutional Neural Networks RGB-D Dataset

Advanced Teleoperation of Mining Equipment: Excavator

VeRLab/ITV-Intituto Tecnológico Vale/UFMG

📅 November 2017 – Today

📍 UFMG, Belo Horizonte, Minas Gerais

The main objective of this project is to investigate the problem of the remote operation of mining equipment and propose a system aiming to increase safety and productivity. We also develop a mobile platform to simulate the teleoperation of an excavator using our proposed system using virtual reality and haptic feedback to provide a greater immersion for the operator.

More info in <https://www.verlab.dcc.ufmg.br/advanced-teleoperation-of-mining-equipment-bulldozer/>

Keywords: Teleoperation Mobile Platform Virtual Reality Haptic Feedback

Binary Descriptor Invariant to Non-Rigid Deformations for RGB-D Images

VeRLab

📅 June 2018 – March 2019

📍 UFMG, Belo Horizonte, Minas Gerais

The project aims to develop a binary RGB-D descriptor invariant to isometric deformations, such as tissue deformations.

Keywords: RGB-D Images Binary Descriptor

CERTIFICATES

Fundamentals of Accelerated Computing with CUDA C/C++

UFMG

📅 24/05/2019

PUBLICATIONS

📄 Journal Articles

- Junior, Sergio N. Silva et al. (2018). "A 3D modeling methodology based on a concavity-aware geometric test to create 3D textured coarse models from concept art and orthographic projections". In: *Computers & Graphics* 76, pp. 73–83. DOI: [10.1016/j.cag.2018.09.002](https://doi.org/10.1016/j.cag.2018.09.002). URL: <https://doi.org/10.1016/j.cag.2018.09.002>.
- Silva, Michel M. et al. (2018). "Making a long story short: A Multi-Importance fast-forwarding egocentric videos with the emphasis on relevant objects". In: *Journal of Visual Communication and Image Representation* 53, pp. 55–64. ISSN: 1047-3203. DOI: [10.1016/j.jvcir.2018.02.013](https://doi.org/10.1016/j.jvcir.2018.02.013).

👥 Conference Proceedings

- Rezeck, Paulo, Felipe Cadar, et al. (2018). "An Immersion Enhancing Robotic Head-Like Device for Teleoperation". In: *2018 Latin American Robotic Symposium, 2018 Brazilian Symposium on Robotics (SBR) and 2018 Workshop on Robotics in Education (WRE)*. IEEE. DOI: [10.1109/lars/sbr/wre.2018.00038](https://doi.org/10.1109/lars/sbr/wre.2018.00038). URL: <https://doi.org/10.1109/lars/sbr/wre.2018.00038>.
- Rezeck, Paulo, Bruna Frade, et al. (2018). "Framework for Haptic Teleoperation of a Remote Robotic Arm Device". In: *2018 Latin American Robotic Symposium, 2018 Brazilian Symposium on Robotics (SBR) and 2018 Workshop on Robotics in Education (WRE)*. IEEE. DOI: [10.1109/lars/sbr/wre.2018.00039](https://doi.org/10.1109/lars/sbr/wre.2018.00039). URL: <https://doi.org/10.1109/lars/sbr/wre.2018.00039>.
- Silva, M. M. et al. (2018). "A Weighted Sparse Sampling and Smoothing Frame Transition Approach for Semantic Fast-Forward First-Person Videos". In: *2018 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. Salt Lake City, USA, pp. 2383–2392. ISBN: 978-1-5386-6420-9. DOI: [10.1109/CVPR.2018.00253](https://doi.org/10.1109/CVPR.2018.00253).

I'M PROUD OF



I promoted a workshop at the Google event: Mind the Gap
"Programming for HoloLens"



Every year I volunteer for UFMG's "Mostra sua UFMG" to help high school students choose a course "



5 Scientific publications
More details at the publications section

STRONG POINTS

Hard-working

Attention to details

Search for learning

Computer Vision

Robotics

Linux

PROGRAMMING SKILLS

Python
C
C++
C#
Matlab
CUDA



ROS

Git

WordPress

Unity

FOREIGN LANGUAGE

English



EDUCATION

Graduation

UFMG

📅 February 2016 – Today

High school

Colégio Santa Marcelina

📅 January de 2013 – December de 2015