Rafael Padilha

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Education

Nov 2019 - Ongoing	**Visiting PhD Student**
	University of Kentucky, USA
	Visiting researcher in _Prof. Nathan Jacobs_' group at the Computer Science Department of the University of Kentucky. One-year research internship funded by São Paulo Research Foundation (FAPESP).
Sep 2017 - Ongoing	**PhD Student**
	University of Campinas
	Researching about temporal inference based on visual evidences in images and videos. The research is funded by São Paulo Research Foundation (FAPESP), as part of Project DéjàVu under supervision of _Prof. Anderson Rocha_ from Institute of Computing, UNICAMP. **GPA 4.0 out of 4.0.**
Jan 2015 - Aug 2017	**MSc degree in Computer Science (Biometrics, Machine Learning)**
	University of Campinas & Motorola Inc.
	Researching about facial recognition in the mobile environment using Deep Learning algorithms. Was _ranked top candidate_ when applying to Master's program among candidates from all over Latin America. Project funded by Motorola Inc. and under supervision of _Prof. Jacques Wainer_, _Prof. Anderson Rocha_ and _Dr. Fernanda Andaló_ from Institute of Computing, UNICAMP. **GPA 4.0 out of 4.0.**
Aug 2012 - Jul 2013	**Exchange Student**
	ENSICAEN, Caen, France
	Exchange student at École Supérieure d'Ingénieurs, in France, studying Computer Science.
Jan 2009 - Dec 2014	**BSc in Computer Engineering**
	University of Campinas
	Bachelor's degree in Computer Engineering from Institute of Computing, UNICAMP. **GPA 3.07 out of 4.0.**

Work Experience

Apr 2018 - Dec 2019

Machine Learning & Deep Learning Teaching Assistant

Mining Complex Data - Unicamp

Assisting professors in classes, preparing slides and activities, and helping students from *Mining Complex Data* extension course offered by Institute of Computing, UNICAMP.

May 2016 - Oct 2016

iOS Developer

Saffe Payments

Working as iOS Developer for Saffe, a mobile payment app that leverages facial recognition technology to make transactions easier and more secure.

Jan 2014 - Aug 2015

Co-founder & iOS Developer

Chefia Startup

We created a set of tools to improve restaurants' customer services and overall clients' experience. With Chefia, you can browse through the restaurant's menu and order your food from your smartphone. The startup was selected among others to be incubated by *Instituto de Pesquisas Eldorado* during 2015. During that time, I worked not only as a developer but also directly with restaurant owners and customers.

Jan 2014 - Dec 2014

Facebook Open Academy - MarkUs

MarkUs open source project

Undergrad final term paper, participating in the Facebook Open Academy program. Worked on the open source project MarkUs with international students.

Jan 2010 - Aug 2012

Undergraduate Researcher

University of Campinas

Working under the supervision of *Prof. Jacques Wainer* on Automatic Detection of Diabetic Retinopathy using machine learning and computer vision algorithms.

2012, 2016 & 2017

"Algorithms & Computer Programming" classes

University of Campinas

Classes taught in a laboratory as a C programming teacher for undergraduate students.

Scientific Work

Improving the chronological sorting of images through occlusion: A study on the Notre-Dame cathedral fire. **PADILHA, R.**; ANDALÓ, F.; ROCHA, A. To be published in: 45th Intl. Conference on Acoustic, Speech and Signal Processing (ICASSP), 2020.

Unraveling the Notre-Dame Cathedral fire in space and time: an X-coherence approach. **PADILHA, R.**; ANDALÓ, F.; PEREIRA, L. A. M.; ROCHA, A. Book chapter to appear in: Crime Science and Digital Forensics: A Holistic View, 2020.

Two-tiered facial verification for mobile devices. **PADILHA, R.**; ANDALÓ, F.; TORRES, R.; WAINER, J.; ROCHA, A. In: Workshop of Theses and Dissertations, 31st Conference on Graphics, Patterns and Images (WTD/SIBGRAPI), 2018.

A Competition on Generalized Software-based Face Presentation Attack Detection in Mobile Scenarios. BOULKENAFET, Z.; ... ; ALMEIDA, W.R.; ANDALÓ, F.; **PADILHA, R.**; BERTOCCO, G.; DIAS, W.; WAINER, J.; TORRES, R.; ROCHA, A.; others. In: Intl. Joint Conference on Biometrics (IJCB), 2017. 4th place in the competition as RECOD team.

Quality Control and Multi-lesion Detection in Automated Retinopathy Classification using a Visual Words Dictionary. JELINEK, H.F.; PIRES, R.; **PADILHA, R.**; GOLDENSTEIN, S.K.; WAINER, J.; ROCHA, A. In: Intl. Conference of the IEEE Engineering in Medicine and Biology Society (EMBS), 2013.

Data Fusion for Multi-lesion Diabetic Retinopathy Detection. JELINEK, H.F.; PIRES, R.; **PADILHA, R.**; GOLDENSTEIN, S.K.; WAINER, J.; BOSSOMAIER, T.; ROCHA, A. In: 25th IEEE Intl. Symposium on Computer-Based Medical System (CBMS), 2012.

Patents

Two-tiered method and apparatus for fast and accurate face verification on mobile devices. Fernanda Andalo, **Rafael Padilha**, Waldir Rodrigues de Almeida, Gabriel Bertocco, Jacques Wainer, Ricardo da Silva Torres, Anderson Rocha. Motorola Inc., filed under United States Patent and Trademark Office.

Talks

Learning visual clues of the passage of time. Intl. Conference on Multimedia and Electronic Safety in Forensic Sciences (ICMedia), São Paulo (Brazil), 2019.

Two-tiered facial verification for mobile devices. 16th Intl. Summer School of Biometrics, Alghero (Italy), 2019.