

# PEDRO TABACOF

## ADDRESS

Rua da Glória, 590  
Campinas, SP, Brazil  
13104-098

Phone: +55 19 99842 5277  
Email: [tabacof@gmail.com](mailto:tabacof@gmail.com)  
Linkedin: [linkedin.com/in/tabacof](https://www.linkedin.com/in/tabacof)  
GitHub: [github.com/tabacof](https://github.com/tabacof)

## EDUCATION

PhD, Computer Engineering 2017-present  
RECOD lab., University of Campinas (Unicamp), Brazil

Master's, Computer Engineering 2015-2017  
RECOD lab., University of Campinas (Unicamp), Brazil  
GPA: 4.0/4.0  
Exploring Adversarial Images in Deep Neural Networks  
*24 academic and 2 media citations*

Bachelor of Science, Computer Engineering 2008-2013  
Unicamp, Brazil  
*Graduated with distinction (top 10% of the class)*

### International experience

University exchange student	Bishop's University, QC, Canada	2010
High school exchange student	Coon Rapids High School, MN, USA	2006

## PROFESSIONAL EXPERIENCE

<b>Researcher</b>	Motorola Mobility	2017-present
Smartphone bug detection and classification. Bug retrieval using vector-space models. Interpretability of machine learning models.		

<b>Co-founder</b>	Datart Data Science	2016-present
Data science consulting startup company. Predictive modeling for e-commerces, including predicting conversion rates, churn, and customer value.		

<b>R&amp;D engineer</b>	I.Systems Industrial Automation	2013-2016
Principal investigator at FAPESP grant, managing two researchers. Responsible for three research interns. Researched and developed modules for predictive models for industrial data, stochastic process control, and advanced regulatory control. Embedded a Lua based scripting language to a control system software. Worked on a government sponsored project (FINEP) on industrial data visualization. Participated to advanced control deployments.		

<b>Internship</b>	I.Systems Industrial Automation	2012-2013
Developed a dynamic simulator of industrial processes using system identification and optimization.		

## ACADEMIC EXPERIENCE

<b>Academic internship</b>	ČVUT v Praze, Czech Republic	2012
Non-profit activities at the department of electrotechnology. Developed a photovoltaic cell simulator with a graphical user interface in Python.		

<b>Undergraduate research</b>	LSC, IC, Unicamp	2010-2011
Worked on a multi-core cryptographic microprocessor under supervision of prof. Guido Araújo. Project funded by Fapti.		

<b>Teaching assistant</b>	IC, Unicamp	
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Data Structures (MC202).  
Algorithms and Computer Programming (MC102)

2016  
2009-2010

## PUBLICATIONS

Pedro Tabacof, Julia Tavares, and Eduardo Valle. “Adversarial images for variational autoencoders”. *NIPS Workshop on Adversarial Training*, 2016. *Spotlight presentation*.

Ramon Oliveira\*, Pedro Tabacof\*, and Eduardo Valle. “Known Unknowns: Uncertainty Quality in Bayesian Neural Networks”. *NIPS Workshop on Bayesian Deep Learning*, 2016.

Alan Godoy, Pedro Tabacof, and Fernando J. Von Zuben. “The role of the interaction network in the emergence of diversity of behavior”. *PloS one* 12.2, 2017.

Pedro Tabacof and Eduardo Valle. “Exploring the space of adversarial images”. *IEEE International Joint Conference on Neural Networks*, 2016.

Pedro Tabacof, Tim Busbice, and Stephen D. Larson. “Beyond the connectome hairball: Rational visualizations and analysis of the *C. elegans* connectome as a network graph using hive plots”. *Frontiers in Neuroinformatics*, 20:55–65, 2013.

## CERTIFICATIONS

Deep Learning Summer School (1/3 acceptance rate), Université de Montréal, 2016.

World Congress on Computational Intelligence, Vancouver, 2016. *Received IEEE-CIS travel grant*.

Machine Learning Summer School, UT Austin, 2015.

Green Belt Six Sigma, EDTI Campinas, 2014.

Graduate studies on Automation and Intelligent Systems, FEEC, 2013.

## COMPUTER SKILLS

**Languages:** Python, C/C++, Lua, MATLAB, R, SQL, JavaScript, Scala

**Frameworks:** Scikit-learn, Lasagne, Theano, Torch7, Stan, CUDA, D3.js

**Miscellaneous:** Git, Excel,  $\text{\LaTeX}$

## LANGUAGES

Native: Portuguese

Fluent: English

Beginner: French

Last updated: June 27, 2017