



# Micael Carvalho

## Researcher in Machine Learning / Vision

### Contact me

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Paris, France

### Find me

micaelcarvalho.com  
GitHub: [MicaelCarvalho](#)  
LinkedIn: [micael-carvalho](#)

### Languages

Portuguese Native  
English Fluent  
French Fluent  
Spanish Intermediate  
(2014) TOEFL ITP 66/61/57  
(2017) TOEIC 495+485

### Teaching

Embedded Sys. TA (2013)  
Computer Org. TA (2014)  
Arduino (2014, 2 x 2015)  
Multimedia TA (2016)  
Deep Learning TA (2016)  
Visual Recognition TA (2017)

### More

DjLu's developer  
bootstrap.pytorch's dev.  
Java SE6 certified 1Z0-851

### Skills

Assembly, C, C++, CSS,  
HTML, Java, JS, MATLAB,  
PHP, Python, PyTorch, SQL,  
TensorFlow & many more.  
Non-exhaustive list.

### Experience

- 2018  
3 months **Research Intern** [Tesla \(Headquarters\)](#)  
Intern in the autopilot team, under the supervision of Andrej Karpathy.
- 2011 - 2013  
2 years **Software Developer** [Fundação para Inovações Tecnológicas](#)  
R&D for automated provisioning (telecom), public payphones with WiFi diffusion, integration of communication and management software, development of internal libraries, & more.
- 2010 - 2011  
1 year **Software Development Intern** [FlySolution](#)  
ERP development using Java, Servlet, JSP, Hibernate, MySQL, & more.
- 2009 - 2010  
2 years **Software Developer (Volunteer)** [Núcleo de Desenvolvimento de Jogos Digitais](#)  
Development of digital games using C++, Delphi, and box2d. In charge of image processing, from acquisition to segmentation. [See video demo](#).

### Education

- 11/15 - 12/18 **PhD in Computer Science / AI / Vision** [Sorbonne University / UPMC](#)  
**Supervisor:** Matthieu Cord  
**Topics:** Deep learning, image classification, feature space understanding, knowledge transfer, representation learning and metric learning.  
**Awards:** Scholarship by CNPq, SIGIR travel grant.
- 11/14 - 02/15 **MSc int. scientific internship** [Pierre and Marie Curie University \(UPMC\)](#)  
**Supervisors:** Matthieu Cord and Nicolas Thome.
- 03/13 - 07/15 **MSc in Electrical Engineering** [University of Campinas](#)  
**Supervisors:** Eduardo Valle and Sandra Avila **GPA: 3.50**  
**Title:** "Transfer Schemes for Deep Learning in Image Classification"  
**Topics:** Transfer learning, automated melanoma screening, robustness of deep features, and representation techniques.  
**Awards:** Scholarships (MSc) Samsung, (int. sci internship) Santander.
- 03/11 - 02/12 **Undergraduate research** [São Paulo State Technological College](#)  
**Dissertation's supervisor:** José Luís Zem  
**Title:** "Parallel and distributed programming in computer cluster."
- 03/09 - 12/12 **BSc of System Analysis and IT** [São Paulo State Technological College](#)  
**Dissertation's supervisor:** Kleber de Oliveira Andrade **GPA: 3.25**  
**Title:** "Artificial neural networks for facial emotions scanning."  
**Award:** Best technical work at academic symposium. [See video](#).
- 03/07 - 07/09 **Computer Technician + Specialization** [São Paulo State Technical School](#)  
**Topics:** Databases, networks, programming, project management, & hardware. + Java programming, IBM's Rational and Websphere.



# Micael Carvalho

PhD candidate in Machine Learning

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## Extra

- 2017 **Reading group winner ([link](#))** [International Computer Vision Summer School](#)
- 2014 **Undergraduate co-orientation** [Nicholas Fanelli \(PUC-Campinas\)](#)  
**Title:** Cryptographic key generation with a bio-inspired algorithm
- 2012 & 2015 **South America/Brazil Finalist** [International Collegiate Programming Contest](#)

## Bibliographic production

- 2018 **Cross-modal retrieval in the cooking context: Learning semantic text-image embeddings**  
SIGIR [Micael Carvalho\\*](#), Rémi Cadène\*, David Picard, Laure Soulier, Nicolas Thome, and Matthieu Cord.  
[arXiv](#), [DOI](#)  
International ACM SIGIR Conference on Research and Development in Information Retrieval.
- 2018 **Images & Recipes: Retrieval in the cooking context**  
ICDE/DECOR [Micael Carvalho\\*](#), Rémi Cadène\*, David Picard, Laure Soulier, and Matthieu Cord.  
[arXiv](#), [slides](#) [DOI](#)  
IEEE International Conference on Data Engineering (ICDE), Data Engineering meets Intelligent Food and COoking Recipe (DECOR) workshop.
- 2017 **Inspiring Computer Vision System Solutions**  
ICVSS [Julian Zilly](#), Amit Boyarski, [Micael Carvalho](#), Amir Atapour Abarghouei, Konstantinos Amplianitis, Aleksandr Krasnov, Massimiliano Mancini, Hernán Gonzalez, Riccardo Spezialetti, Carlos Sampedro Pérez, and Hao Li.  
[arXiv](#)  
Winning entry for the reading group competition of the International Computer Vision Summer School (ICVSS).
- 2016 **Deep Neural Networks Under Stress**  
ICIP [Micael Carvalho](#), Matthieu Cord, Sandra Avila, Nicolas Thome, and Eduardo Valle.  
[arXiv](#), [extra](#), [DOI](#)  
IEEE International Conference on Image Processing (ICIP), Phoenix, Arizona, USA.
- 2016 **Towards Automated Melanoma Screening: Proper Computer Vision & Reliable Results**  
Tech. Report [Michel Fornaciali](#), [Micael Carvalho](#), Flávia Vasques Bittencourt, Sandra Avila, and Eduardo Valle.  
[arXiv](#), [extra](#)
- 2015 **Building up Conceptual Spaces: An ESOM Supported Strategy**  
BRACIS [Suelen de Paula](#), [Micael Carvalho](#), and Ricardo Gudwin.  
[PDF](#), [DOI](#)  
Brazilian Conference on Intelligent Systems (BRACIS), Natal, Brazil.
- 2014 **Statistical Learning Approach for Robust Melanoma Screening**  
SIBGRAPI [Michel Fornaciali](#), Sandra Avila, [Micael Carvalho](#), and Eduardo Valle.  
[PDF](#), [DOI](#)  
27th Conference on Graphics, Patterns and Images (SIBGRAPI), Rio de Janeiro, Brazil.