

## Research interests

Computer vision, image representation, machine learning.

## Research positions

- Dec. 2020–today **Research Scientist**, *valeo.ai*, Paris, France  
*Publications*: [7, 8, 9, 10, 11]
- March 2020–Aug. 2020 **Research Intern**, *Google*, Grenoble, France  
*Supervisors*: Pr. Cordelia Schmid and Dr. Chen Sun
- Nov. 2018–Feb. 2019 **Intern**, *Twitter / Magic Pony*, London, England  
*Supervisors*: Dr. Wenzhe Shi and Dr. Jose Caballero
- April 2018–June 2018 **Visiting Student**, *Center for Machine Perception, CVUT*, Prague, Czech Republic  
*Supervisor*: Dr. Ondřej Chum  
*Publication*: [3]
- Feb. 2016–July 2016 **Research Intern**, *Onera*, Paris, France  
*Supervisors*: Dr. Stéphane Herbin and Dr. Adrien Chan Hon Tong  
*Thesis*: Scene representation through contextualization of object recognition algorithms in images
- June 2014–Sept. 2014 **Research Intern**, *Institute for Advanced Biosciences, Keio University*, Tsuruoka, Japan  
*Supervisor*: Dr. Kumar Selvarajoo  
*Thesis*: Statistical analysis of genes expression  
*Publication*: [6]
- June 2013–July 2013 **Research Intern**, *Humboldt University*, Berlin, Germany  
*Supervisor*: Pr. Andreas Griewank  
*Thesis*: Development of an algebraic tool for Automatic Differentiation

## Activities

- 2023 **ICCV 2023**, *Logistics Chair*, Paris, France
- 2023 **CVPR 2023 Tutorial**, *Organization of the tutorial "Object localization for free"*, Vancouver, Canada
- 2023 **Internal workshop**, *Organization of valeo.ai internal workshop VAST*  
Paris, France
- 2020-23 **Journal reviewing**, TPAMI [2021-23], IJCV [2022-23], CVIU [2022-2023], IEEE RA [2020]
- 2020-23 **Conference reviewing**, CVPR [2020-23], ECCV [2022], ICCV [2023], NeurIPS [2021]

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## Education

- 2016–2020 **PhD researcher**, *Inria / Université de Rennes 1*, Rennes, France  
*Supervisors*: Dr. Yannis Avrithis and Pr. Guillaume Gravier  
*Thesis*: Robust image representation for classification, retrieval and object discovery  
*Publications*: [1, 2, 3, 4, 5]  
*Reviewers*: Pr. Patrick Pérez and Pr. Josef Sivic  
*Jury members*: Pr. Cordelia Schmid, Dr. Hervé Jégou,  
Dr. Diane Larlus and Dr. Elisa Fromont  
Dr. Ondřej Chum (invited)  
*Defense date*: 10th of September 2020 (initially 31th of March 2020)
- 2015–2016 **Master of Statistics and Business Intelligence**, *Paul Sabatier University*,  
Toulouse, France
- 2012–2015 **Engineer diploma in Telecommunications**, *Enseirb-Matmeca*, Bordeaux,  
France

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## Awards

- 2022 CVPR 2022 Outstanding Reviewer Award  
2019 ICVSS 2019 Best Presentation Award  
2018 Guest invitation Google Computer Vision PhD Summit, Zurich  
2017 VS3 Vision and Sports Summer School 2017 Best Poster Award

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## Invited talk

- 09/2023 **TBA**, *ECMLPKDD'23 Workshop "Adapting to Change"*, Turin, Italy
- 06/2023 **Exploiting self-supervised features: unsupervised object localization**,  
*CVPR'23 Tutorial "Object localization for free"*, Vancouver, Canada
- 03/2022 **Constructing cost-effective training datasets for the object detection  
task applied to urban datasets**, *Confiance.ai*, online
- 01/2022 **Localizing Objects with Self-Supervised Transformers and no Labels**,  
*IMAGINE team*, Paris, France [online]
- 06/2021 **Robust image representation for classification and object discovery**,  
*Quarma team*, Marseille, France [online]
- 04/2021 **Image representation for retrieval and object discovery: exploiting feature  
maps**, *Vertigo team, CNAM*, Paris, France [online]
- 10/2020 **Robust image representation for classification, retrieval and object dis-  
covery**, *PhD defense*, Rennes, France
- 07/2019 **Local Features and Visual Words Emerge in Activations [short]**, *ICVSS'19  
(best pres. award)*, Sicily, Italy
- 05/2019 **Local Features and Visual Words Emerge in Activations**, *VGG group*,  
Oxford, UK

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## Research collaborators

valeo.ai	Patrick Pérez, Renaud Marlet, Matthieu Cord, Andrei Bursuc, Spyros Gidaris, Gilles Puy
Google	Cordelia Schmid, Chen Sun, Arsha Nagrani
Inria	Yannis Avrithis, Guillaume Gravier, Ahmet Iscen, Ronan Sicre
Czech Technical University	Ondřej Chum, Giorgos Tolias
Onera	Stéphane Herbin, Adrien Chan Hon Tong

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## Teaching experience

2017	<b>Lectures and practicals, Teaching Assistant, INSA Rennes, France</b> Algorithms and Programming I
2016–2017	<b>Lectures and practicals, Teaching Assistant, INSA Rennes, France</b> Introduction to Database

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## Working experience

Feb. 2015–Aug. 2015	<b>Technical Intern, Intersec, Paris, France</b> Implementation of tools allowing the interoperability between the SNMP protocol and the Intersec Object Packer technology
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## Summer schools

ICVSS 2019	International Computer Vision Summer School 2019. Sicily, Italy 7-13 July.
VS3 2017	Vision and Sports Summer School 2017. Prague, Czech Republic 21-26 August.
DS3 2017	Data Science Summer School 2017. Paris, France 28 August-1 September.

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## Languages

English	Fluent	<i>TOEIC: 965/990 and IELTS: 7.0/9</i>
Italian	Intermediate	<i>B1 level</i>
French	Native	

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## Computer skills

Programming	Python, Matlab, C++, Java, R, Linux shell
Other	Tensorflow, PyTorch, caffe, MatConvNet, scikit-learn, L <sup>A</sup> T <sub>E</sub> X

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## Full list of publications

- [1] O. Siméoni. *Robust image representation for classification, retrieval and object discovery*. PhD thesis, Inria, Université de Rennes 1, 2020.
- [2] O. Siméoni, M. Budnik, Y. Avrithis, and G. Gravier. Rethinking deep active learning: Using unlabeled data at model training. In *International Conference on Pattern Recognition (ICPR)*, 2020.

- [3] O. Siméoni, Y. Avrithis, and O. Chum. Local features and visual words emerge in activations. In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Long Beach, CA, US, 6 2019.
- [4] O. Siméoni, A. Iscen, G. Tolias, Y. Avrithis, and O. Chum. Graph-based particular object discovery. *Machine Vision and Applications (MVA)*, 2019.
- [5] O. Siméoni, A. Iscen, G. Tolias, Y. Avrithis, and O. Chum. Unsupervised object discovery for instance recognition. In *IEEE Winter Conference on Applications of Computer Vision (WACV)*, 2018.
- [6] O. Siméoni, V. Piras, M. Tomita, and K. Selvarajoo. Tracking global gene expression response in T cell differentiation. *Gene*, 2015.
- [7] Oriane Siméoni, Gilles Puy, Huy V. Vo, Simon Roburin, Spyros Gidaris, Andrei Bursuc, Patrick Pérez, Renaud Marlet, and Jean Ponce. Localizing objects with self-supervised transformers and no labels. In *Proceedings of the British Machine Vision Conference (BMVC)*, November 2021.
- [8] Antonin Vobecky, David Hurych, Oriane Siméoni, Spyros Gidaris, Andrei Bursuc, Patrick Pérez, and Josef Sivic. Drive&segment: Unsupervised semantic segmentation of urban scenes via cross-modal distillation. In *Proceedings of the European Conference on Computer Vision (ECCV)*, October 2022.
- [9] Huy V. Vo, Oriane Siméoni, Spyros Gidaris, Andrei Bursuc, Patrick Pérez, and Jean Ponce. Active learning strategies for weakly-supervised object detection. In *Proceedings of the European Conference on Computer Vision (ECCV)*, October 2022.
- [10] Oriane Siméoni, Chloé Sekkat, Gilles Puy, Antonin Vobecky, Éloi Zablocki, and Patrick Pérez. Unsupervised object localization: Observing the background to discover objects. In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.
- [11] Nermin Samet, Oriane Siméoni, Gilles Puy, Georgy Ponimatkin, Renaud Marlet, and Vincent Lepetit. You never get a second chance to make a good first impression: Seeding active learning for 3d semantic segmentation. In *IEEE/CVF International Conference on Computer Vision (ICCV)*, 2023.