# Quentin Guimard

quentin.guimard@univ-cotedazur.fr
https://mardgui.github.io/
https://scholar.google.com/citations?user=nxGwojoAAAAJ
http://www.linkedin.com/in/quentinguimard/


## PhD student in computer science at Université Côte d'Azur

*Expected graduation date: December 2023 / January 2024*

## Employment History

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|---|---|
| Oct 2020 – Present | **PhD student**, Université Côte d'Azur, Laboratoire d'Informatique, Signaux et Systèmes de Sophia Antipolis (I3S). *Sophia Antipolis, France*.<br>Keywords: deep learning, latent variables, trajectory prediction. |
| Sep 2019 – Sep 2020 | **Data scientist apprentice**, Thales Services. *Sophia Antipolis, France*.<br>Keywords: unsupervised learning, clustering, time series forecasting. |
| Jul 2019 – Aug 2019 | **Research intern**, Université du Québec à Montréal (UQAM). *Montreal, Canada*.<br>Keywords: machine learning, classification, NLP. |

## Education

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| 2020 – Present | **PhD, Université Côte d'Azur** in Computer Science.<br>Title: *Deep learning for adaptive 360° video streaming in virtual reality*.<br>1-month research stay in MICC, *Florence, Italy*.<br>3-month research stay in CWI, *Amsterdam, Netherlands*. |
| 2017 – 2020 | **Master's degree, Université Côte d'Azur** in Computer Science.<br>Master's / *diplôme d'ingénieur* double degree from Polytech Nice Sophia.<br>Specialization: *Data Science*. Obtained with highest honors. |
| 2018 – 2019 | **Erasmus exchange, Université Catholique de Louvain** in Computer Science.<br>Duration: One semester. |

## Awards and Achievements

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| 2022 | **Best Paper Award**, ACM MMSys 2022. For the paper "Deep Variational Learning for Multiple Trajectory Prediction of 360° Head Movements". |
| 2023 | **CWI internship grant**, recipient of a competitive grant for a three-month PhD internship at Centrum Wiskunde & Informatica (CWI). |

## Research Publications

### Journal Articles

1. **Guimard**, **Q.**, Sassatelli, L., Marchetti, F., Becattini, F., Seidenari, L., & Del Bimbo, A. (2023). Deep Variational Learning for 360° Adaptive Streaming. *Accepted with minor revision in ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*.

### Conference Proceedings

1. **Guimard**, **Q.**, & Sassatelli, L. (2023). SMART360: Simulating Motion Prediction and Adaptive BitRate STrategies for 360° Video Streaming. In *Proceedings of the 14th ACM Multimedia Systems Conference (MMSys '23)*, ACM.

2. **Guimard**, **Q.**, Robert, F., Bauce, C., Ducreux, A., Sassatelli, L., Wu, H.-Y., … Gros, A. (2022a). On the link between emotion, attention and content in virtual immersive environments. In *Proceedings of the 2022 IEEE International Conference on Image Processing (ICIP)*, IEEE.

3. **Guimard**, **Q.**, Robert, F., Bauce, C., Ducreux, A., Sassatelli, L., Wu, H.-Y., … Gros, A. (2022b). PEM360: A dataset of 360° videos with continuous Physiological measurements, subjective Emotional ratings and Motion traces. In *Proceedings of the 13th ACM Multimedia Systems Conference (MMSys '22)*, ACM.

4. **Guimard**, **Q.**, & Sassatelli, L. (2022a). Effects of Emotions on Head Motion Predictability in 360° Videos. In *Proceedings of the 14th International Workshop on Immersive Mixed and Virtual Environment Systems (MMVE '22)*, ACM.

5. **Guimard**, **Q.**, & Sassatelli, L. (2022b). Machine learning-based strategies for streaming and experiencing 3DoF virtual reality: research proposal. In *Proceedings of the 13th ACM Multimedia Systems Conference (MMSys '22)*, ACM.

6. **Guimard**, **Q.**, Sassatelli, L., Marchetti, F., Becattini, F., Seidenari, L., & Del Bimbo, A. (2022). Deep Variational Learning for Multiple Trajectory Prediction of 360° Head Movements. In *Proceedings of the 13th ACM Multimedia Systems Conference (MMSys '22)*, ACM.

### Preprints

1. Sawadogo, A. D., **Guimard**, **Q.**, Bissyandé, T. F., Kaboré, A. K., Klein, J., & Moha, N. (2021). *Early Detection of Security-Relevant Bug Reports using Machine Learning: How Far Are We?* Retrieved from https://arxiv.org/abs/2112.10123

## Teaching Experience

2020 – 2023
- **Introduction to Imperative Programming**. Université Côte d'Azur.
  Bachelor level. Lab sessions. Keywords: Python, Turtle.
- **Algorithms and Data Structures**. Université Côte d'Azur.
  Bachelor level. Lab sessions. Keywords: Java, object-oriented programming, recursive functions, stacks, queues, linked lists, binary trees.

2022 – 2023
- **Machine Learning**. Université Côte d'Azur.
  Master level. Lab sessions. Keywords: Scikit-learn, dimensionality reduction, clustering, decision trees, linear / logistic regression, MLP, CNN, SVM, ensemble learning.

2020 – 2022
- **From Shallow to Deep Learning**. Université Côte d'Azur.
  Master level. Lab sessions. Keywords: content-based image retrieval, SIFT, bag-of-words, CNN, style transfer.

2021
- **Deep Reinforcement Learning**. UCA Deep Learning School.
  Summer school interactive tutorial. Keywords: Q-learning, deep Q-networks, imitation learning.
- **Visual Recognition and Domain Adaptation**. UCA Deep Learning School.
  Summer school interactive tutorial. Keywords: object detection, instance segmentation, transfer learning, GAN, domain adaptation.

## References


**Lucile Sassatelli**
Professeure des universités
Université Côte d'Azur
lucile.sassatelli@univ-cotedazur.fr

**Lorenzo Seidenari**
Professore Associato
Università degli Studi di Firenze
lorenzo.seidenari@unifi.it

**Pablo Cesar**
Professor
CWI, TU Delft
p.s.cesar@cwi.nl

**Frédéric Precioso**
Professeur des universités
Université Côte d'Azur
frederic.precioso@univ-cotedazur.fr