Quentin Guimard

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PhD student in computer science at Université Côte d'Azur

Expected graduation date: December 2023 / January 2024

Employment History

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

Education

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

Awards and Achievements

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, domain adaptation.

References

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