CORENTIN KERVADEC

PhD in Machine Learning

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https://corentinkervadec.github.io/ | Corentin Kervadec | @CorentK

ML SKILLS

Pytorch | Tensorflow | NLP | CV | Deep Learning | Vision & Language

CODING

Python | C/C++ | Linux

LANGUAGE

French: Native
English: Working level
Spanish: Novice

REFEREES

Moez Baccouche
AI Researcher
Orange
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Grigory Antipov
AI Researcher
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Christian Wolf
Associate Professor
INSA Lyon
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Khaoula Elagouni
Team manager
Orange
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HOBBIES

Music | Guitar | Reading

ABOUT ME

Hello! I am looking for postdoc or a researcher job position in ML. I would enjoy working on shortcut learning and/or reasoning models.

EXPERIENCE

AI researcher | Orange Labs (joint industry-academia thesis)

Sep. 2018 – Sep. 2021 | Rennes, France

- Conducting research on deep learning applied to vision and language
- Publishing/reviewing for top-tier ML/CV conferences (including two A*)
- Communicating on my work during seminars (including with non-expert audience)

AI researcher (Master's internship) | Orange Labs

Feb. 2018 – Aug. 2018 | Rennes, France

- Working on facial expression recognition for emotion estimation
- Ranked 3th at the Emotion in the Wild 2018 challenge (ICMI'18)

Electronics researcher (internship) | Tallinn University of Technology

Jun. 2017 – Sep. 2017 | Tallinn, Estonia

- Working on transient computing for autonomous wireless sensor networks

EDUCATION

Ph.D. in Machine Learning | LIRIS lab., INSA Lyon

Advised by C. Wolf, M. Baccouche and G. Antipov | 2018 – 2021 | Lyon, France

Deep Learning | Visual reasoning | Bias reduction | Visual Question Answering (VQA)

- Studying *visual reasoning* in deep learning, with a special interest in *VQA*.
- Conceiving methods to evaluate and reduce the impact of *shortcut learning*.

Master's Degree in Electronics & Computer Engineering | INSA Rennes

2015 – 2017 | Rennes, France

Signal processing | Applied mathematics | Computer sciences | Computer vision | Electronics

- Thesis title: *Emotion Representation & Generation using a Deep Learning Approach*

Preparatory cycle | INSA Rennes

2013 – 2015 | Rennes, France

- Scientific common core, from thermodynamics to computer sciences

RESEARCH PUBLICATIONS

Roses are red, violets are blue... but should vqa expect them to? | arxiv-link | Github

- ***Kervadec, C.**, Antipov, G., Baccouche, M. and Wolf, C.*
- In IEEE Computer Vision and Patter Recognition (CVPR), 2021.

How transferable are reasoning patterns in vqa? | OpenReview-link | Demo

- ***Kervadec, C.**, Jaunet, T., Antipov, G., Baccouche, M., Vuillemot, R., and Wolf, C.*
- In IEEE Computer Vision and Patter Recognition (CVPR), 2021.

Weak supervision helps emergence of word-object alignment and improves vision-language tasks | arxiv-link | video

- ***Kervadec, C.**, Antipov, G., Baccouche, M. and Wolf, C.*
- In European Conference on Artificial Intelligence (ECAI), 2020.

Estimating semantic structure for the vqa answer space | arxiv-link

- ***Kervadec, C.**, Antipov, G., Baccouche, M. and Wolf, C.*
- Preprint arXiv, 2020.

The Many Variations of Emotion | arxiv-link

- ***Kervadec*, C.**, Vielzeuf*, V., Pateux, S., and Jurie, F.*
- In IEEE International Conference on Automatic Face & Gesture Recognition (FG), 2019.

Cake: Compact and accurate k-dimensional representation of emotion | arxiv-link

- ***Kervadec, C.**, Vielzeuf, V., Pateux, S., Lechervy, A., and Jurie, F.*
- In Image Analysis for Human Facial and Activity Recognition (BMVC workshop), 2018.

An occam's razor view on learning audiovisual emotion recognition with small training sets | arxiv-link

- *Vielzeuf, V., **Kervadec, C.**, Pateux, S., Lechervy, A., and Jurie, F.*
- In International Conference on Multimodal Interaction (ICMI), 2018.

Autonomous wireless sensor networks: Implementation of transient computing and energy prediction for improved node performance and link quality

- *Ahmed, F., **Kervadec, C.**, Le Moullec, Y., Tamberg, G., and Annus, P.*
- In The Computer Journal, 2019.