Camille BESOMBES

Artificial intelligence research scientist looking for a job opportunity.

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Professional

July 2022 - Research assistant, McGill University - Research department in dentistry., Mon-Now tréal, Quebec, Canada, .

> Development of computer vision algorithm to detect oral cancer from photographic images.

- Implementation of SOTA algorithm in python.
- Uncertainty quantification and explainability applied to deep learning.
- Research communication.
- o Code maintenance using versioning software such as git.

December 2021 PhD on deep learning applied to physics, CERFACS, TotalEnergies, Toulouse, September France.

- 2018 Programming of generative adversarial network applied to data assimilation for reservoir characterization and atmospheric circulation.
 - Published paper in Non-linear Processes in Geophysics (NPG) (see Publications section).
 - Experience in complete data science software suite : Tensorflow/Keras (Generative network development), pandas, scikit-learn...
 - Communication skills with scientific and industrial audience.
 - Implementation of Al literature: U-nets, Resnets, generative networks, attention-based models...

September 2018 Research internship in deep learning applied to geosciences, CERFACS,

- April 2018 TotalEnergies, Toulouse, France.

• Preliminary work that led to my PhD project.

- Learning scientific literature on computer vision, generative networks, optimization.
- o Interaction with an industrial (TotalEnergies). Understanding their problematic and requirements.
- Participation in scientific data science challenges.
- Mastering of programming environment: Unix, Git, python, supercomputers, notebook, cloud computing...

August 2017 - Research internship in fluid-structure interactions., Queen's University, June 2017 Belfast, United Kingdom, .

- English work environment.
- Coupling fluid-structure simulator.

July 2016 - Internship in web development, Happy people 31, Toulouse, France, Website June 2016 development.

- Small work team environment and interaction with designers and database engineers.
- o Independent learning of the web programming languages HTML, CSS, PHP and MySQL.

Publications

 Publication in Non-linear Processes in Geophysics (NPG): Producing realistic climate data with generative adversarial networks. (doi: 10.5194/npg-28-347-2021)

Education

2015–2018 **Fluid dynamics and hydrodynamics**, *Engineering school at INPT-ENSEEIHT*, Toulouse, France.

Numerical simulation and modeling specialization

2013–2015 **Classes Préparatoires aux Grandes Écoles**, *Lycée Camille Jullian*, Bordeaux, France, Physics and Chemistry specialization.

2012–2013 **Baccalauréat scientific specialization**, *Lycée Anatole de Monzie*, Bazas, France, With distinctions.

Skills

Professional: Used to work in teams of various sizes. Fast learning skills and autonomy.

Theoretical: Knowledge in physical simulator, statistics and mathematics

Informatic : Linux environment, Git, Docker, Python, Matlab, Office pack, LateX, Markdown. **Data science :** Tensorflow, Keras, Pytorch, Pandas, Scikit-learn, HDF5 format, Seaborn, Mat-

plotlib...

Linguistic: French, English.

Hobbies

• Sport • Technologies • Voyage • Stand-up comedy • Music • Programming