

Hassan Ismail Fawaz, MSc

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🌐 <https://github.com/hfawaz>

🌐 <https://hfawaz.github.io>

🎓 <https://bit.ly/hfawaz-google-scholar>

🐦 <https://twitter.com/hassanfawaz93>

Employment History

- 2017 – 2020 📌 **Researcher.** IRIMAS, Université Haute Alsace, France.
- 2018 – 2020 📌 **Lecturer.** ENSISA, Université Haute Alsace, France.
- 2017 – 2017 📌 **Internship.** Data Services & Valorisation for Business, Orange Labs, France.
- 2016 – 2017 📌 **Internship.** TICKET Lab, Université Antonine, Lebanon.
- 2016 – 2016 📌 **Freelance.** Website development - www.mradmcc.com.
- 2015 – 2015 📌 **Internship.** Web application development, Dar El Handasah, Lebanon.

Education

- 2017 – 2020 📌 **PhD Machine Learning, Université Haute Alsace, France**
Temporal data analysis with surgical data science application.
- 2016 – 2017 📌 **MSc Computer Science, Université de Bourgogne, France**
Second Class Honours. Databases & Artificial Intelligence.
- 2011 – 2017 📌 **MSc Software Engineering, Université Antonine, Lebanon**
Fourth Class Honours. Software & Telecommunications Engineering.

Research Publications

Journal Articles (accepted)

- 1 **Ismail Fawaz, H., Lucas, B., Forestier, G., Pelletier, C., Schmidt, D. F., Weber, J., ... Petitjean, F.** (2020). [InceptionTime: Finding AlexNet for Time Series Classification](#). *Data Mining and Knowledge Discovery*. Code is available on <https://github.com/hfawaz/InceptionTime>.
- 2 **Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A.** (2019a, August). [Accurate and interpretable evaluation of surgical skills from kinematic data using fully convolutional neural networks](#). *International Journal of Computer Assisted Radiology and Surgery*. Code is available on <https://github.com/hfawaz/ijcars19>.
- 3 **Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A.** (2019b, January). [Deep learning for time series classification: a review](#). *Data Mining and Knowledge Discovery*. Code is available on <https://github.com/hfawaz/dl-4-tsc>.
- 4 **Forestier, G., Petitjean, F., Senin, P., Despinoy, F., Huaultmé, A., Ismail Fawaz, H., ... Jannin, P.** (2018, September). [Surgical motion analysis using discriminative interpretable patterns](#). *Artificial Intelligence in Medicine*, 91, 3–11.

Conference Proceedings

- 1 **Mathis, F., Ismail Fawaz, H., & Khamis, M.** (2020). [Knowledge-driven Biometric Authentication in Virtual Reality](#). In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems Extended Abstracts*.

- 2 **Ismail Fawaz, H., Forestier, G., Weber, J., Petitjean, F., Idoumghar, L., & Muller, P.-A.** (2019). [Automatic alignment of surgical videos using kinematic data](#). In *Artificial Intelligence in Medicine*. Acceptance rate is **21%**. Code is available on <https://github.com/hfawaz/aime19>.
- 3 **Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A.** (2019c). [Deep Neural Network Ensembles for Time Series Classification](#). In *IEEE International Joint Conference on Neural Networks*. Code is available on <https://github.com/hfawaz/ijcnn19ensemble>.
- 4 **Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A.** (2019d). [Adversarial Attacks on Deep Neural Networks for Time Series Classification](#). In *IEEE International Joint Conference on Neural Networks*. Code is available on <https://github.com/hfawaz/ijcnn19attacks>.
- 5 **Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A.** (2018a). [Evaluating surgical skills from kinematic data using convolutional neural networks](#). In *Medical Image Computing and Computer Assisted Intervention*. (Oral selection rate **4%**). Code is available on <https://github.com/hfawaz/miccai18>.
- 6 **Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A.** (2018c). [Transfer learning for time series classification](#). In *IEEE International Conference On Big Data*. Selection rate **18.9%**. Code is available on <https://github.com/hfawaz/bigdata18>.

Workshops

- 1 **Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A.** (2018b). [Data augmentation using synthetic data for time series classification with deep residual networks](#). Code is available on <https://github.com/hfawaz/aaltd18>.

Miscellaneous Experience

Visiting researcher

- 2019
- **Monash University**. One month visiting [François Petitjean](#).
 - **Google Brain**. One day visiting [Neil Zeghidour](#).
 - **Sorbonne University**. One day visiting [Jean-Yves Franceschi](#).
 - **Open University of The Netherlands**. One day visiting [Daniele Di Mitri](#).
- 2018
- **Wayne State University**. One day visiting [Abhilash Pandya](#).

Grants

- 2019
- **Mésocentre of Strasbourg**. [1.6 million GPU computing hours](#).
- 2018
- **Mésocentre of Strasbourg**. [1.6 million GPU computing hours](#).
- 2017
- **NVIDIA Corporation GPU Grant**. [Quadro P6000](#).
 - **Coursera Financial Aid**. [Deep learning speciality](#).

Certifications

- 2019
- **Participation**. [International Workshop on Machine Learning & Artificial Intelligence](#).
 - **Participation**. [PRAIRIE Artificial Intelligence Summer School](#).
 - **Participation**. [Learning from Data Streams and Time Series](#).
 - **Participation**. [International Conference on Computer Assisted Radiology & Surgery](#).
- 2018
- **Volunteering**. [IEEE International conference on Big Data](#).

Miscellaneous Experience (continued)

- 2017 **Participation.** [International Summer School on Deep Learning.](#)
- 2017 **Participation.** Cisco CCNA 1, 2, 3 & 4.
- 2016 **Participation.** Lebanese Collegiate Programming Contest.
- Participation.** Advanced Programming & Algorithms Boot Camp.
- 2015 **Participation.** Lebanese Collegiate Programming Contest.

Awards

- 2018 **IEEE International Conference on Big Data.** [Student Travel Award.](#)
- 2016 **First place.** Université Antonine Programming Competition.
- 2015 **Second place.** Université Antonine Programming Competition.

Talks & presentations

- 2019 **TsDays.** Apprentissage par transfert pour la classification de séries temporelles.
- 2018 **French society of computer science.** What to do with your PhD?
- GDR-MADICS.** Interpretable evaluation of surgical skills.

Teaching

- 2019 **Web programming.** Engineering students in Computer Science - 24 hours.
- 2018 **Deep Learning.** M.Sc. students in Computer Science - 20 hours.

Conference committee

- 2019 **ORASIS.** [Journées francophones des jeunes chercheurs en vision par ordinateur.](#)
- AE.** [Biennial International Conference on Artificial Evolution.](#)

Workshop committee

- 2019 **AALTD.** [ECML/PKDD Workshop on Advanced Analytics & Learning on Temporal Data.](#)
- OR.** [MICCAI Workshop on OR 2.0 Context-Aware Operating Theaters.](#)

Reviewer

- 2020 **ECAI.** [European Conference on Artificial Intelligence.](#)
- 2019 **NEUNET.** [Neural Networks.](#)
- IEEE TKDE.** [IEEE Transactions of Knowledge and Data Engineering.](#)
- IEEE JBHI.** [Journal of Biomedical and Health Informatics.](#)
- MICCAI.** [Medical Image Computing and Computer Assisted Intervention.](#)
- IEEE/CAA JAS.** [Journal of Automatica Sinica.](#)
- AIRE.** [Artificial Intelligence Review.](#)

Open Source Projects

- 2020 **Keras.io.** [The first Keras tutorial on deep learning for time series classification.](#)
- 2019 **sktime-dl.** [An extension package for deep learning with Keras for sktime.](#)