Hassan Ismail Fawaz, MSc

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⌂ https://hfawaz.github.io   in www.linkedin.com/in/h-fawaz

🌐 https://scholar.google.com/citations?user=oUrGNaoAAAAJ

Employment History

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

Research Publications

Journal Articles (accepted)

1. **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.

2. **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/.

3. Forestier, G., Petitjean, F., Senin, P., Despinoy, F., Huaulmé, 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. **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.

2. **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.

3   **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.

4   **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.

5   **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.

Skills

Languages	English (TOEIC-955), French (B2), German (B1) & Arabic.
Development	Python, Java & Slurm Workload Manager.
Databases	MySQL, Neo4J, Protégé & Elasticsearch.
Web Dev	HTML, CSS, JavaScript, Apache Web Server & Tomcat Web Server.
Misc.	Academic research, teaching, LaTeX typesetting & publishing.

Miscellaneous Experience

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.

Visiting researcher

2019	**Open University of The Netherlands**. Daniele Di Mitri.
2018	**Wayne State University**. Dr. Abhilash Pandya.

Certifications

2018	**Volunteering**. IEEE International conference on Big Data.
	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.

Miscellaneous Experience (continued)

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

2019   🔖 **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

2019   🔖 **sktime-dl**. An extension package for deep learning with Keras for sktime.