Hassan Ismail Fawaz, MSc

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

Employment History

- 2017 2020 **PhD candidate.** IRIMAS, Université Haute Alsace, France.
- 2018 2019 ■ Lecturer. ENSISA, Université Haute Alsace, France.
- 2016 2017 ■ Internship. TICKET Lab, Université Antonine, Lebanon.
- 2016 − 2016 Freelance. Website development www.mradmcc.com.

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 Hounours. Databases & Artificial Intelligence.
- 2011 2017 M.Sc. Software Engineering, Université Antonine, Lebanon Fourth Class Honours. Software & Telecommunications Engineering.

Research Publications

Journal Articles (accepted)

- Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A. (2019a). Deep learning for time series classification: a review. *Data Mining and Knowledge Discovery*. Code is available on https://github.com/hfawaz/dl-4-tsc/.
- Forestier, G., Petitjean, F., Senin, P., Despinoy, F., Huaulmé, A., **Ismail Fawaz**, **H.**, ... Jannin, P. (2018). Surgical motion analysis using discriminative interpretable patterns. *Artificial Intelligence in Medicine*, *91*, 3–11.

Conference Proceedings

- 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.
- Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A. (2019b). 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.
- Ismail Fawaz, H., Forestier, G., Weber, J., Idoumghar, L., & Muller, P.-A. (2019c). 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.

- 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/miccail8.
- 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

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, Lagrange & publishing.

Miscellaneous Experience

Grants

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

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.

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.

Miscellaneous Experience (continued)

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

Reviewer

- 2019 | IEEE TKDE. IEEE Transactions of Knowledge and Data Engineering
 - IEEE JBHI. Journal of Biomedical and Health Informatics
 - MICCAI. International Conference on Medical Image Computing and Computer Assisted Intervention
 - IEEE/CAA JAS. Journal of Automatica Sinica