LEFORT-BESNARD Jérémy

Behavioral Informatics and Interaction Computation lab
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#Python_Programming #Machine_Learning #Clinical_Data

EDUCATION

2015-2019 **Ph.D** in computational neuroscience (Magna Cum Laude) *RWTH Aachen University, Germany*Supervision: Prof. Danilo Bzdok, RWTH University
Prof. Danielle S. Bassett, UPENN
Scholarship: Interventional Research Training Group (DEC. IEEC. 2150)

Scholarship: International Research Training Group (DFG-IRTG 2150)

2015 Master "Neurosciences, Cognition and Psychology" (with honors)

Psychologist title, supervision by the Master "Child psychology"

**University of Tours, France

2013 **Bachelor** in Psychology (with honors) Bucknell University, USA and University of Tours, France

SELECTED PUBLICATIONS (PEER REVIEWED JOURNALS)

Lefort-Besnard J., Varoquaux G., Derntl B., Gruber O., Aleman A., Jardri R., Sommer I., Thirion B., Bzdok D. Patterns of Schizophrenia Symptoms: Hidden Structure in the PANSS Questionnaire. *Translational Psychiatry*. 2019

Ridge Regression, SVM, PCA, Random Forest, kNN, Adaptive Boosting

Input data: clinical questionnaire's scores, demographic data

OHBM 2019 Roma abstract presentation

Lefort-Besnard J., Bassett S.D., Smallwood J., Margulies S.D., Derntl B., Gruber, O., Aleman A., Jardri R., Varoquaux G., Thirion B., Eickhoff B.S., Bzdok D. Different shades of default mode disturbance in schizophrenia: Subnodal covariance estimation in structure and function. *Human Brain Mapping*. 2017. 39:644–661

Sparse Inverse Covariance, Lasso, Hypothesis Testing

Input data: fMRI (time-series), MRI (voxels), demographic data

OHBM 2018 Singapor abstract presentation + awarded of the DAAD travel grant

- Recently submitted -

Lefort-Besnard J., Vogeley K, Schilbach L, Varoquaux G, Thirion B, Dumas G, Bzdok D. Patterns of Autism Symptoms: Hidden Structure in the ADOS and ADI-R instruments. Submitted 2020.

K-means clustering, sparse logistic regression, bootstrap confidence interval

Input data: clinical questionnaire's scores, demographic data

Pfundmair M, Lefort-Besnard J. Identifying predictive features of islamist radicalization. Submitted 2020.

Sparse logistic regression, Confusion matrix, nested cross validation

Input data: demographic data from German police office

RELEVANT EXPERIENCE

Since 2019	POSTDOCTORAL RESEARCHER on learning predictive models based of brain-region and brain-network priors	n behaviors, NTHU, Taiwan
2020	Project presentation IRTG 2150 conference	RWTH Aachen, Germany
2020	Teacher "HTML, CSS and JS"	NTHU, Taiwan
2019	Sys Admin Gitlab instance on Ubuntu server	NTHU, Taiwan
2018+2019	Teacher "Using Git, Github and creating a science portfolio"	RWTH Aachen, Germany, NTHU, Taiwan
2018	Hackaton Focus on Pytorch	Zurich, Swiss
2018	Project presentation IRTG 2150 conference	RWTH Aachen, Germany
2018	Poster Presentation OHBM conference	Suntec, Singapore
2017+2018	Teacher assistant "Machine learning crash course"	RWTH Aachen, Germany

2017+2018 **Teacher** "Introduction to Python" RWTH Aachen, Germany

2017 **Hackaton** Focus on Pycortex and Pandas hacks Max Plank Leipzig

2017 **Project Presentation** IRTG 2150 conference UPENN, USA

2016 **Personal blog** https://losangebleu.site scripted from scratch using html/CSS/JS/PHP

SKILLS & OTHER RELEVANT EXPERIENCES

Numbers | Machine learning/Statistics

Research | Brain imaging, psychiatry, quantitative neuroscience, personalized medicine

Computer | Python, R, Matlab, SPSS, Bash scripts, VirtualBox

Website | HTML, CSS, JS, PHP, MySQL, phpMyAdmin

OS | Linux, Mac, Windows

Version control | Git, Github, Gitlab

Editor | Markdown, Latex, Jupyter, VIM, GIMP, Office

Communication | Slack, Mattermost,

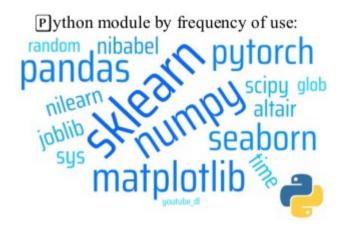
Language | French native, English full working proficiency, some German and Chinese

2013-2015 | Founder and President of ESN Tours (10.000 Euros annual budget)

Since 2016 | Writer on Quora @Jeremy-Lefort-Besnard (500.000 content views in English, 250.000 in French, 700 followers)

Hobbies | I try to run a marathon every 3 years, free (libre) softwares, volunteering





Brain computed using the wordcloud package with my publications as input (https://github.com/JLefortBesnard/Brain_filled_with_words)