LEFORT-BESNARD Jérémy

Behavioral Informatics and Interaction Computation lab
National Tsing Hua University,
Hsinchu, Taiwan (R.O.C.)
Github.com/JLefortBesnard ♦ Twitter.com/JLefortBesnard
jlefortbesnard@tuta.io ♦ https://jeremylefortbesnard.de

#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: 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 journal -

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

- Conference paper -

Lefort-Besnard J., Wan-Ting Hsieh, Hao-Chun Yang, Li-Wei Kuo, Chi-Chun Lee. Behavior Score-Embedded Brain Encoder Network for Improved Classification of Alzheimer Disease Using Resting State fMRI. *IEEE EMBC 2020*.
    Convulational Neural Network, Autoencoder, SVM. **Ridge Regression,**
    SVM, PCA, Random Forest, kNN, Adaptive Boosting
    Input data: fMRI (time-series), clinical questionnaire's scores, demographic data
    42nd Annual International Conference IEEE EMBC 2020 Montreal presentation

- 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
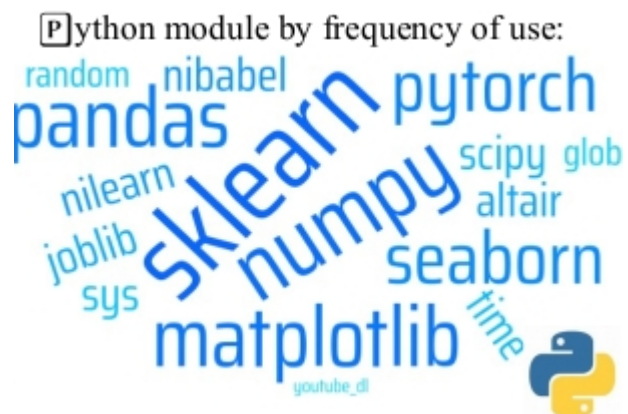   Input data: demographic data from German police office

RELEVANT EXPERIENCE

Since 2019	**POSTDOCTORAL RESEARCHER** on learning predictive models based on behaviors, brain-region and brain-network priors	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
Since 2016	**Blog** https://losangebleu.site scripted from scratch using html/CSS/JS/PHP + MySQL/phpMyAdmin	

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)