Gansheng Tan

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Objective

Team-minded and **self-motivated** master student in biomedical engineering with 3 years of experience in **meditation** and **stroke rehabilitation research** seeks admission into the Neuroscience Program at Washington University in St. Louis.

Education

since 09/2019 M.Sc. Mechanical and Biomedical Engineering

Shanghai, China Shanghai Jiao Tong University

Anticipated Completion: March 2022

06/2017 – 09/2019 Diplôme d'ingénieur (postgraduate degree in engineering)

Île-de-France, CentraleSupélec

France Topics: Advanced Statistics, Machine Learning, Optimization, Signal Processing

09/2015 - 06/2017 **B.Eng.**

Shanghai, China Shanghai Jiao Tong University

Topics: Mechanical engineering, Computer Science

Experience

since 01/2020 Graduate Research Assistant

Shanghai, China Department of Rehabilitation Medicine (Ruijin Hospital) - State Key Laboratory of

Mechanical Systems and Vibration, Shanghai Jiao Tong University

Developing a framework based on Electroencephalography (EEG) and Electromyography to quantitively track motor recovery and evaluate the effects of non-

invasive brain stimulations

05/2019 - 09/2019 Research Fellow

Bron, France INSERM, French National Institute of Health and Medical Research

Analyzed the cerebral oscillations underlying the meditative practices of Open Presence and Focused Attention; developed semi-automatic EEG signal preprocessing

pipeline for meditation research

since 09/2018 Graduate Research Assistant

Île-de-France, Signals and Systems Laboratory, UMR 8506, French National Centre for Scientific

France Research

Identified neural correlates of Focused Attention meditation and problem-solving state;

developed a platform guiding meditators based on mental state classification

10/2018 - 05/2019 Teaching Fellow

Île-de-France, Laboratory in Mathematics and Computer Science (MICS), CentraleSupélec

France Instructor for CIP-EDP courses (Convergence, Integration, Probability and Partial

Differential Equation)

08/2018 – 05/2019 Vice President of International Student Union

Île-de-France, CentraleSupélec

France Organized integration weeks, cultural exchange activities

06/2018 - 08/2018 Industrial Internship

Lyon, France Ma-para, Pharmacy of Carrefour

Consulted the clients

04/2018 - 05/2018 **Exchange Student**

Cambridge, U.K. Department of Engineering, University of Cambridge

Attended cross-disciplinary workshops

10/2017 – 06/2018 **Project Manager**

Paris, France Tech for Good Explorers, Latitudes & La Condamine

Created a digital platform to help artists build their careers where professional artists,

art lovers and event organizers can interact with each other

05/2016 – 05/2017 Undergraduate Research Assistant

Shanghai, China School of mechanical engineering, Shanghai Jiao Tong University

Studied water film flooding mechanism on a tilting large plate

<u>Awards</u>

2020 Changjiang Siyuan Scholarship, Shanghai Jiao Tong University, China

2018 Top 10 in Huawei Big Data Challenge in France

2018 Innovative Project Award, CS² Congrès Scientifique du Campus de Saclay, France

2017 Ecoles Centrales Group – Chinese Universities Double Degree Scholarship, China

2016 Honor Student, Shanghai Jiao Tong University, China

2015 Excellent Design, Engineering Design Showcase, Shanghai Jiao Tong University, China

Languages

Chinese: Native proficiency

English: Full professional proficiency French: Full professional proficiency

Skills

Software Engineering (Python, R, Matlab, Github, Java, C/C++, HTML, CSS)

Scientific Illustration (Adobe Illustrator, MS Office, Latex)

Data Science (5 years)

Biomedical Signal Processing and Analysis (4 years)

Clinical and Translational Research (4 years)

Publications

J. Liu, G. Tan, Y. Sheng and H. Liu, "Multiscale transfer spectral entropy for quantifying corticomuscular interaction," in IEEE Journal of Biomedical and Health Informatics.

J. Liu, **G. Tan**, Y. Sheng, J. Wang, W. Lu and H. Liu, "Delay estimation for cortical-muscular interaction via the rate of voxels change," 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC), Toronto, ON, Canada, 2020, pp. 3897-3902.