

# VUONG HUNG TRUONG

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## EDUCATION

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**Graduate Institute of Mind, Brain and Consciousness** *September 2017 - July 2019*  
**Taipei Medical University, Taiwan**  
Master program in Cognitive Neuroscience - M.A.  
Average score: 92.56/100; equivalent to 4.00/4.00 in the U.S.s grading system.

**School of Medicine** *September 2010 - October 2016*  
**Vietnam National University Ho Chi Minh City, Vietnam**  
Doctor of Medicine - M.D.  
Average score: 8.09/10; equivalent to 3.50/4.00 in the U.S.s grading system.

## RESEARCH INTERESTS

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There is probably no such profession like a "medical computer scientist" but it is close to what I do now. It is extremely fascinating to me to understand and use the concepts from medicine and computer science. What I am trying to do is to investigate human perception and behavior from both biological and computational perspectives with help of neuro-imaging techniques like EEG and fMRI. By modelling these processes and simulations, I would like to further understand their underlying mechanism, which cannot be achieved with only empirical data.  
Growing up in a developing country, I am also keen on using DIY (do-it-yourself) experimental devices (movement sensors, IR cameras for eye tracking, etc.) and open source programming (C++, Python) in order to lift the boundary between "the haves and the have nots".

## RESEARCH EXPERIENCE

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**Graduate Institute of Mind, Brain and Consciousness - Taipei Medical University**  
**Supervisor: Niall William Duncan, Assistant professor, Ph.D** *September 2017 - Present*  
**Main activities and responsibilities:**

- Leading a project original research Acute tryptophan depletion and emotional visual mismatch negativity from study design, data preparation to data analysis, and writing manuscript.
- Leading a side project original research Head movement and negative childhood experience: A mock fMRI scanner study.
- Learning how to deal with human subjects, collecting, organizing and distributing data.
- Learning neuroimaging techniques: fMRI, EEG (wet and dry electrodes).
- Learning basic data analysis and designing experiment using Python, Matlab, MNE, SPM, FSL, Freesurfer, AFNI, PsychoPy and R.

**Graduate Institute of Mind, Brain and Consciousness - Taipei Medical University**  
**Supervisor: Philip Tseng, Associate professor, Ph.D** *July 2019 - Present*  
**Main activities and responsibilities:**

- Co-leading a project related to top-down abnormalities in Schizophrenia.
- Learning how to program a task with Psychtoolbox.
- Learning EEG analysis using Fieldtrip toolbox.

- Learning Brain stimulation technique (tDCS).
- Work with research assistants in Wanfang hospital to collect and analyse behavioral data in Schizophrenia patients.

**Graduate Institute of Mind, Brain and Consciousness - Taipei Medical University**

**Supervisor: Jihwan Myung, Associate Professor, Ph.D**

*September 2018 - June 2019*

**Main activities and responsibilities:**

- Working with electronic devices and developing a software to measure locomotor activity for mice experiment.
- Learning wet lab techniques: genotyping, PCR, brain slicing, brain culture, histopathology classification.
- Learning about Mathematics and Computational Modelling: applications of differential equations, using Hierarchical Guassian Filter to track trajectories of belief about external state from a given input.

**School of Medicine, Vietnam National University Ho Chi Minh City, Vietnam**

**Supervisor: Cam Huyen Nguyen Xuan, Professor, Ph.D**

*October 2015 - July 2016*

**Main activities and responsibilities:**

- Leading the Bachelors graduation thesis Guillain Barr Syndrome: New classification according to Brighton Criteria and GBS Classification Group - a retrospective longitudinal study - from writing proposal, collecting data, data analysis and being the presenter of the thesis.
- Learning basic data analysis using Stata.

## **PUBLICATIONS**

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- Myung, J., Wu, M. Y., Lee, C. Y., Rahim, A. R., Truong, V. H., Wu, D., Wu, M. S. (2019). The Kidney Clock Contributes to Timekeeping by the Master Circadian Clock. International journal of molecular sciences, 20(11), 2765. doi:10.3390/ijms20112765
- Serotonergic modulation of visual emotion mismatch negativity: a roving standard paradigm study (In preparation).
- Head movement and negative childhood experience: A mock fMRI scanner study (In preparation).

## **HONORS AND AWARDS**

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- **Award for outstanding performance and securing the Third position at TMU-MIT (Sana) Hackathon on Health IoT**, from 19 to 21 October 2018, Taipei Medical University x Massachusetts Institute of Technology.
- **Taipei Medical University International Student Scholarship Type B for Master program**, 2017-2019.
- **Award for excellent achievement**, for class 2010-2016, Vietnam National University - School of Medicine.
- **Award for the 1 st prize in Raising the spirit**, 2014, HCMC University of Medicine and Pharmacology English Eloquent Competition.
- **Award for the 3 rd prize of Mendels Nursery Garden**, 2013, Vietnam National University - Ho Chi Minh City University of Sciences competition in Biology.
- **Top 40 in 70 teams from the Written Quiz proceed to the Oral Quiz competition in the 10 th Inter-medical School Physiology Quiz (Prof A. Raman Challenge Trophy)**, 2012, University of Malaya, Malaysia.

- **Award for the 4 th prize of Mendels Nursery Garden**, 2012, Vietnam National University - Ho Chi Minh City University of Sciences competition in Biology.
- **Award for the highest score in the 1 st Academic year**, 2011, School of Medicine -Vietnam National University.

## LEADERSHIP EXPERIENCE

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### **Graduate Institute of Mind, Brain and Consciousness**

**Mentor**

*September 2018 - present*

- Mentoring a graduate student in a research project using eye blink detector, head movement measurement, EKG, breathing measurement.

### **Clinical rotation group at hospitals in Ho Chi Minh City**

**Leader**

*September 2014 - September 2016*

- Managing and arranging schedule for the group.
- Contacting medical doctors and lecturers from Thong Nhat, Binh Dan, Pham Ngoc Thach Hospitals to arrange the schedule for the class.
- Holding meetings to share knowledge and experience among members (Clinical case discussion).

### **School of Medicine, Vietnam National University**

**Co-founder of The School of Medicine English Club**

*September 2011 - September 2012*

- Organizing an event to welcome the freshmen.
- Organizing English competitions with invited English teachers.

## EXTRA-CIRRICULAR

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- **Phystoon Drawing Contest in Physiology**, 2012 Malaysia.
- **University entrance examination support campaign**, 2011, Ho Chi Minh City Youth Union, Vietnam.
- **Global me Eloquent Contest about How to make the Earth greener**, 2010, International University, Vietnam National University, Vietnam.

## LANGUAGES

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**Vietnamese:** native.

**English:** fluent. IELTS: 6.5 (Reading 7.0, Listening 6.5, Speaking 6.0, Writing 6.0). GRE: Quantitative 161, Verbal 147, Writing 3.0.

**Chinese:** basic communication .