# NGUYEN VAN QUANG



www.davidnvq.github.io linkedin.com/in/quanguet in

Sept 2019 - Present.

Sept 2017 - Present.

Sept 2015- Aug 2016

Sept 2012 - Aug 2017

Aug 2009 - June 2012

GPA: 4.0/4.0

GPA: 4.36/4.5

GPA: 3.88/4.0

github.com/davidnvq

#### **EDUCATION**

Tohoku University, Japan PhD Student in Computer Vision Lab

Tohoku University, Japan

Master Student in Data Sciences Program

Daejeon University, South Korea

Exchange Student in Fostering ASEAN Future Leaders Program

University of Engineering and Technology, Vietnam

Bachelor in Computer Science, The Undergraduate Thesis (scored 10/10)

High School for Gifted Students, Vietnam National University

Major in Chemistry, First National Chemistry Olympiad Prize in 2012

## TECHNICAL SKILLS

**Programming Languages** Familiar Operating Systems **Machine Learning Frameworks** Software Development Experiences

Python, Java, C/C++, Swift Mac OS, Ubuntu, and Windows Pytorch, Tensorflow, Keras, pandas, numpy Android, iOS Application, and Web Development

# WORK AND RESEARCH EXPERIENCES

## Research Graduate Student

September 2017 - Now

Tohoku University - supervised by Prof. Takayuki Okatani, Prof. Tokuymama

- · Visual Dialog: The current work focuses on building a system which can answer a question based on the image and dialog history provided. We proposed an efficient attention mechanism for multiple inputs in Visual Dialog to improve the performance to the SOTA on the task.
- · Micro-expression Recognition: Using CapsuleNet and various CNN models for Micro-expression Recognition. The work was accepted in FG 2019 with available [Code], [Pdf].
- · Micro-expression Spotting: Using the 3D-CNN model to detect and spot the period of microexpressions from videos with available [Code].

#### Machine Learning Research Intern

June 2016 - September 2016

Laboro. AI Inc. - supervised by Dr. Hiromasa Fujihara

- · Face Detection: The main focus is to detect the hard faces including small, occluded faces from images. The work was accepted in FG 2019 with available [Project Web], [Code], [Pdf].
- · Object Recognition: My reponsibility to write the Keras scripts for training ResNet101 on ImageNet from scratch (There was no such implementation available on the Internet). The training procedure took 2 weeks to converge with approximately same results  $(\pm 0.4\%)$  as public pretrained versions on Tensorflow, Pytorch and so on. The company code is closed to public.

# Machine Learning Research Intern

July 2016 - August 2016

Software Engineer Incubation Center, Fujitsu Japan

· Research Project: Building a system for question answering. I was responsible for investigating and prototyping a deep learning model using transformer blocks to build a system for question answering with the datasets from Fujitsu's clients. The code was only available to internal Fujitsu.

#### Research Bachelor Student

June 2015 - June 2017

Data Science Laboratory - supervised by Assoc. Prof. Quang-Thuy Ha

- · Research Topics: Various machine learning algorithms for NLP and medical field.
- **Text classification**: I was working on several models for multi-label text classification. Together with other researchers, we published several papers to the conferences and journal.
- e-Doctor Big Data Project: I was responsible for preprocessing more than 1 million medical records from patients taking medical test in Vietnam.
- · Thesis titled "An algorithm adaptation multi-label classification method and experiments on Vietnamese text" was awarded as the best thesis of the year. The electronic version can be found here.

# Web Development Intern

Jan 2016 - March 2016

United Nations Asia Pacific Center for ICT Development, South Korea

· Work Project: Front-end development for e-learning website included fixing bugs and maintaining the code.

#### **PUBLICATIONS**

- Efficient Attention Mechanism for Handling All the Interactions between Many Inputs with Application to Visual Dialog
   Arxiv 2019
   Nguyen Van Quang, Masanori Suganuma, Takayuki Okatani
   [Pdf]
- 2. CapsuleNet for Micro-Expression Recognition Automatic Face and Gesture Recognition 2019, France Nguyen Van Quang, Jinhee Chun, Takeshi Tokuyama [Code][Pdf]
- 3. Revisiting a single-stage method for face detection Automatic Face and Gesture Recognition 2019, France

Nguyen Van Quang, Hiromasa Fujihara

[Project Web][Code][Pdf]

- 4. A New Lifelong Topic Modeling Method and Its Application to Vietnamese Text Multi-label Classification In proceedings of ACIIDS 2018, LNAI 10751 Quang-Thuy Ha, Thi-Ngan Pham, **Van-Quang Nguyen**, Thi-Cham Nguyen, Thi-Hong Vuong, Minh-Tuoi Tran, Tri-Thanh Nguyen
- 5. A New Text Semi-supervised Multi-label Learning Model Based on Using the Label-Feature Relations In proceedings of ICCCI 2018, LNAI 11055, UK Quang-Thuy Ha, Thi-Ngan Pham, **Van-Quang Nguyen**, Minh-Chau Nguyen, Thanh-Huyen Pham, Tri-Thanh Nguyen
- 6. A semi-supervised multi-label classification framework with feature reduction and enrichment In Journal of Information Tecommunication, 2018, UK Thi-Ngan Pham, Van-Quang Nguyen, Van-Hien Tran, Tri-Thanh Nguyen, Quang-Thuy Ha [Pdf]
- 7. MASS: A Semi-supervised Multi-label Classification Algorithm with Specific Features In proceedings of ACIIDS 2017, Studies in Computational Intelligence 710, Japan Thi-Ngan Pham, **Van-Quang Nguyen**, Tri-Thanh Nguyen, Quang-Thuy Ha [Code][Pdf]

8. Social-spam Profile Detection based on Content Classification and User Behavior — In Information Security Conference 2016, Vietnam — Thi-Hong Vuong, Van-Hien Tran, **Van-Quang Nguyen**, Minh-Duc Nguyen, Cam-Van Thi Nguyen, Thanh-Huyen Pham, Mai-Vu Tran

# SCHOLARSHIPS AND AWARDS

1. Japanese Government Scholarship (MEXT) for PhD Course	2019 - 2022
2. Japanese Government Scholarship (MEXT) for Master Course	2017 - 2019
3. Data Science Summer School Scholarship, Gottingen University	$August\ 2018$
4. Honda Young Engineer Scientist Award for 10 most execellent students in Vietnam	Sept 2017
5. Third Prize of National Scientific Student Research Conference	Sept 2017
6. Excellent Thesis Award - Best undergraduate thesis (scored $10/10$ )	June~2017
7. First Prize of Scientific Student Research Conference	June~2017
8. Excellent Student Award - The valedictorian of QH-2012 batch	June~2017
9. AmCham Scholarship - from American Chamber and the US Ambassy	June 2017
10. Machine Learning Summer School Scholarship, Kyoto University	August 2016
11. Merit-based University Scholarships, UET-VNU	2013 - 2017
12. Shinnyo-en Scholarships, awarded in 4 consecutive years	2012 - 2016
13. Hoa Trang Nguyen Award, awarded to only 2 recipients from UET-VNU	2012
14. The second highest score in University Entrance Examination	2012
15. First Prize in National Chemistry Olympiad 2012	2012
16. Merit-based New South Wale University Scholarship, Australia	2012
17. Telecom Corporation Scholarship	2012
18. Odon Vallet Scholarship, France	2011
19. Third Prize in National Chemistry Olympiad 2011	2011

# OTHER INFORMATION

Teaching Assistant	Data Mining, Introduction to Infomatics 1		
Languages	English (Advanced) and Japanese (Beginner)		
Hobbies	Photography, Running, Table tennis, and Football		
Tools	Latex, Adobe, Microsoft Office, Javascript, HTML, CSS.		

# REFERENCES

1. Prof. Takayuki Okatani	PhD Supervisor	Email: okatani@vision.is.tohoku.ac.jp
1. Prof. Takeshi Tokuyama	Master Supervisor	Email: tokuyama@dais.is.tohoku.ac.jp
2. Doctor Hiromasa Fujihara	Intern Supervisor	Email: fujihara@laboro.ai
3. Assoc. Prof. Ha Quang Thuy	Bachelor Supervisor	Email: thuyhq@vnu.edu.vn