DAT THANH NGUYEN

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EDUCATION

9/2019 – 11/2020 **Master's Degree** **Télécom Paris, France**
* Major: Multimedia Networking * CPA: 16.7/20 * Rank: Highest Honors
* Courses: Multimedia compression (20/20), Advanced multimedia compression (19/20) , Deep Learning for multimedia (16/20), Optimization and Control (18/20).

9/2013 – 03/2019 **Engineer's Degree** **Hanoi University of Science and Technology, Vietnam**
* Major: Electronics and Telecommunications Class: Talented Engineer
* CPA: 3.43/4.0 Rank: Top 2%

4/2018 – 9/2018 **Exchange Program** **Technical Univerisity of Munich, Germany**
* Major: Electronics and computer engineering
* Courses: Pattern recognition, Multiple view reconstruction, IC design

EMPLOYMENT AND RESEARCH EXPERIENCE

06/2021 – present **PhD Candidate** **LMS, FAU, Germany**
* Deep learning based point cloud compression
* Image, video, point cloud processing
* Supervisors: Prof. Dr.-Ing. André Kaup.

`Python / Tensorflow / PyTorch / PyCloud / Machine learning / Git`

11/2020 – 05/2021 **Research Engineer** **L2S, CentraleSupélec, France**
* Deep learning based lossless point cloud geometry compression
* Point cloud processing.

`Python / Tensorflow / PyTorch / PyCloud / Generative models / Git`

5/2020 – 11/2020 **Master's Internship** **L2S, CentraleSupélec, France**
* Subject: Lossless compression of Point Clouds based on Machine Learning tools
* Supervisors: VALENZISE Giuseppe and PIERRE Duhamel (CNRS).

`Python / Tensorflow / PyCloud / CABAC / Git`

12/2018 – 8/2019 **Deep Learning Engineer** **Tri Nam Tdi., Jsc, FPT Software, Vietnam**
* Develop, optimize and implement a real time face recognition and identification.
* Develop and integrate a new real-time smoke and fire detection model into a smart city system.
* Develop a real-time traffic rules violations model (crossing red line, parking, changing lane).

`Python / Tensorflow / YOLO / OpenCV / Kafka / Flask / Git / Linux`

9/2016 – 12/2018 **Research Assistant** **Future Internet Laboratory, Vietnam**
* Design a novel architecture incorporating Dynamic Adaptive Streaming and Software-Defined Networking in video streaming.
* Develop view port adaptation method in VR applications under fluctuating bandwidth.

`C++ / Java / Linux / DASH / QoE / VMware / HEVC / Virtual Reality`

SKILLS AND QUALIFICATIONS

Programming languages: Python, C++, C, Matlab, Java, VHDL
Libraries & tools: Tensorflow, Pytorch, Keras, scikit-learn, Docker, Kafka, Flask, VMware
Operating systems: Linux, Windows, MacOS
Presentations at: ICASSP'21, ICMEW'21, JWOC'21, INISCOM'19

AWARDS AND SCHOLARSHIPS

FAU President's Welcome Award
Labex Digicosme scholarship (Telecom Paris, 2019)
Erasmus+ scholarship at TUM, Germany (2018)
Best student award (HUST, 2016)
Scholarships for excellent students, (HUST, 2015-2017)

LANGUAGES

English - Proficient
French - Beginner
German - Beginner

LIST OF PUBLICATIONS

2021 **IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)**
Nguyen, Dat Thanh, Maurice Quach, Giuseppe Valenzise, and Pierre Duhamel. "Lossless Coding of Point Cloud Geometry using a Deep Generative Model." IEEE Transactions on Circuits and Systems for Video Technology 31, no. 12 (2021): 4617-4629.

2021 **ICASSP 2021**
Nguyen, Dat Thanh, Maurice Quach, Giuseppe Valenzise, and Pierre Duhamel. "Learning-based lossless compression of 3d point cloud geometry." In ICASSP 2021-2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 4220-4224. IEEE, 2021.

2021 **ICMEW 2021**
Nguyen, Dat Thanh, Maurice Quach, Giuseppe Valenzise, and Pierre Duhamel. "Multiscale deep context modeling for lossless point cloud geometry compression." In 2021 IEEE International Conference on Multimedia & Expo Workshops (ICMEW), pp. 1-6. IEEE, 2021.

2020 **MONET- Springer Journal**
Thinh, P. H., **Dat, N. T.**, Nam, P. N., Thanh, N. H., Nguyen, H. M., Huong, T. T. An Efficient QoE-Aware HTTP Adaptive Streaming over Software Defined Networking. Mobile Networks and Applications, 1-13.

2019 **INISCOM 2019**
Thinh P.H., **Dat N.T.**, Nam P.N., Thanh N.H., Huong T.T. (2019) QoE-Aware Video Streaming over HTTP and Software Defined Networking. Industrial Networks and Intelligent Systems. INISCOM 2019. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 293. Springer, Cham.