

Quang-Hieu Pham

PH.D. CANDIDATE

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Education

- 2016-now **Ph.D.** in Computer Science
Singapore University of Technology and Design (SUTD)
• Advisors: Dr. Sai-Kit Yeung and Dr. Gemma Roig.
- 2010-2014 **B.S.** in Computer Science
Ho Chi Minh University of Science (HCMUS)
• Graduated with highest honors (3.91 GPA).

Publications

CONFERENCE ARTICLES

- 2020b **Quang-Hieu Pham***, Pierre Sevestre*, Ramanpreet Singh Pahwa, Huijing Zhan, Chun Ho Pang, Yuda Chen, Armin Mustafa, Vijay Chandrasekhar, and Jie Lin. “A*3D: An autonomous driving dataset in challenging environments”. In *IEEE International Conference on Robotics and Automation (ICRA)*. *Equal contribution. [\[PDF\]](#) [\[HTML\]](#)
- 2020a **Quang-Hieu Pham**, Mikaela Angelina Uy, Binh-Son Hua, Duc Thanh Nguyen, Gemma Roig, and Sai-Kit Yeung. “LCD: Learned Cross-Domain Descriptors for 2D-3D Matching”. In *AAAI Conference on Artificial Intelligence (AAAI)*. ORAL PRESENTATION. [\[PDF\]](#) [\[HTML\]](#)
- 2019c Mikaela Angelina Uy, **Quang-Hieu Pham**, Binh-Son Hua, Duc Thanh Nguyen, and Sai-Kit Yeung. “Revisiting point cloud classification: A new benchmark dataset and classification model on real-world data”. In *International Conference on Computer Vision (ICCV)*. ORAL PRESENTATION. [\[PDF\]](#) [\[HTML\]](#)
- 2019b **Quang-Hieu Pham**, Duc Thanh Nguyen, Binh-Son Hua, Gemma Roig, and Sai-Kit Yeung. “JSIS3D: Joint semantic-instance segmentation of 3D point clouds with multi-task pointwise networks and multi-value conditional random fields”. In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. ORAL PRESENTATION (acceptance rate 5.6%). [\[PDF\]](#) [\[HTML\]](#)
- 2019a **Quang-Hieu Pham**, Binh-Son Hua, Duc Thanh Nguyen, and Sai-Kit Yeung. “Real-time progressive 3D semantic segmentation for indoor scenes”. In *IEEE Winter Conference on Applications of Computer Vision (WACV)*. [\[PDF\]](#) [\[HTML\]](#)
- 2018 **Quang-Hieu Pham**, Minh-Khoi Tran, Wenhui Li, Shu Xiang, Heyu Zhou, Weizhi Nie, Anan Liu, et al. “SHREC’18: RGB-D object-to-CAD retrieval”. In *3DOR: Eurographics Workshop on 3D Object Retrieval*. [\[HTML\]](#)
- 2016b Binh-Son Hua, **Quang-Hieu Pham**, Duc Thanh Nguyen, Minh-Khoi Tran, Lap-Fai Yu, and Sai-Kit

Yeung. “SceneNN: A scene meshes dataset with annotations”. *In International Conference on 3D Vision (3DV)*. BEST PAPER HONORABLE MENTION. [\[HTML\]](#)

2016a Duc Thanh Nguyen, Binh-Son Hua, Minh-Khoi Tran, **Quang-Hieu Pham**, and Sai-Kit Yeung. “A field model for repairing 3D shapes”. *In IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. SPOTLIGHT PRESENTATION

Experience

- 2020–now **SWE Intern**
Lyft Level 5, Palo Alto, CA
- Working on state-of-the-art object detection method for autonomous vehicle.
 - Leading an effort for multi-task machine learning in the LiDAR pipeline.
- 2019 **Research Intern**
Institute of Infocomm Research (I2R), Singapore
- Led a project on 3D dataset for autonomous driving which resulted in an ICRA publication.
 - Worked on semi-supervised learning on satellite image segmentation using mean teacher.
- 2015 **Research Assistant**
Singapore University of Technology and Design (SUTD), Singapore
- Compiled statistics and figures on SceneNN dataset for publication.
 - Added and improved several features to an inhouse OpenGL annotation tool.
- 2014–2015 **Software Engineer**
Autonomous.ai, Ho Chi Minh City, Vietnam
- Built an indoor navigation system using RGB-D sensor running on NVIDIA TK1 using ROS.
 - Developed an indoor mapping system based on RGB-D SLAM.

Honors & Awards

- 2016–2021 **President’s Graduate Fellowship**
Singapore University of Technology and Design (SUTD)
- 2010 **3rd Award**
Vietnam National Olympiad in Computing

Skills

Languages: Vietnamese (native), English (IELTS 7.5)
Programming: C/C++, Python, CUDA, HTML/CSS, ...
Operating Systems: Linux, MacOS
Frameworks: Pytorch, Tensorflow, OpenGL, OpenCV, ...