

# PHAM QUANG HIEU

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## WORK EXPERIENCE

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### Software Engineer

07/2021 – present

Woven by Toyota — *Palo Alto, CA*

- Tech lead of the Online Perception team (10+ engineers). Working on end-to-end Perception Foundation Model that utilizes multiple sensor modalities.
- Tech lead of the Edge Compute team consisting of 5+ engineers. Worked on model profiling, optimization, quantization and model deployment.
- Designed and developed a long-range (>100m) vision-based 3D detection model for our real-time perception system.

### Software Engineer

05/2021 – 07/2022

Lyft Level 5 — *Palo Alto, CA*

- Developed a new free-space prediction model in the perception stack for static obstacle avoidance.
- Lyft Level 5 was acquired by Woven by Toyota in July 2021.

### Research Intern

08/2020 – 11/2020

Meta Reality Labs — *Singapore*

- Researched and developed a deep learning method for high-fidelity 3D eye segmentation using implicit neural representations.

### Software Engineering Intern

02/2020 – 06/2020

Lyft Level 5 — *Palo Alto, CA*

- Improved the performance of a LiDAR-based detection model on large vehicles.
- Led the migration effort of the detection code base from Tensorflow to PyTorch.

## SELECTED PUBLICATIONS

[Google Scholar](#)

### A\*3D: An autonomous driving dataset in challenging environment

ICRA 2020

Quang-Hieu Pham, Pierre Sevestre, Ramanpreet Singh Pahwa, Huijing Zhan, Chun Ho Pang, Yuda Chen, Armin Mustafa, Vijay Chandrasekhar, and Jie Lin

### JSIS3D: Joint semantic-instance segmentation of 3D point clouds with multi-task pointwise networks and multi-value conditional random fields

CVPR 2019

Quang-Hieu Pham, Duc Thanh Nguyen, Binh-Son Hua, Gemma Roig, and Sai-Kit Yeung

### Real-time progressive 3D semantic segmentation for indoor scenes

WACV 2019

Quang-Hieu Pham, Binh-Son Hua, Duc Thanh Nguyen, and Sai-Kit Yeung

## EDUCATION

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### Singapore University of Technology and Design (SUTD)

2016 – 2020

Ph.D. in Computer Science

- SUTD President's Graduate Fellowship

### Vietnam National University - Ho Chi Minh City University of Science

2010 – 2014

B.S. in Computer Science

- Summa cum laude

## SKILLS

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- **Languages:** English (fluent), Vietnamese (native)
- **Programming:** C/C++, Python, CUDA, PyTorch