

CONTACT INFORMATION	Email: <a href="mailto:ductuan.ngo99@gmail.com">ductuan.ngo99@gmail.com</a> Google Scholar: <a href="#">Tuan Duc Ngo</a> Homepage: <a href="https://ngoductuanlhp.github.io/">https://ngoductuanlhp.github.io/</a> Github: <a href="https://github.com/ngoductuanlhp">https://github.com/ngoductuanlhp</a>	
RESEARCH INTERESTS	My research interests are in computer vision, specifically focusing on 3D understanding. I am developing algorithms and techniques for understanding the geometry and semantics of 3D scenes, with applications in autonomous driving, robotics, and augmented reality.	
EDUCATION	<b>University of Massachusetts Amherst,</b> Ph.D. in Computer Science	Massachusetts, US Sep 2023 - Sep 2028 (expected)
	<b>Ho Chi Minh City University of Technology (HCMUT),</b> B.E in Computer Engineering	Ho Chi Minh City, Vietnam Aug 2017 - Aug 2021
	<ul style="list-style-type: none"> <li>• Graduated with the <i>Highest honor</i>.</li> <li>• GPA: 9.62/10.00 <math>\approx</math> A+, <i>Excellent Degree</i></li> </ul>	
PUBLICATIONS	<b>Le Hong Phong High School for the Gifted,</b> Major in <i>Mathematics</i>	Ho Chi Minh City, Vietnam Aug 2014 - Jun 2017
	<b>Conferences</b> <ul style="list-style-type: none"> <li>• <b>Tuan Duc Ngo</b>, Binh-Son Hua, Khoi Nguyen, “<a href="#">GaPro: Box-Supervised 3D Point Cloud Instance Segmentation Using Gaussian Processes as Pseudo Labelers</a>”, under review at <b>ICCV</b>, 2023.</li> <li>• <b>Tuan Duc Ngo</b>, Binh-Son Hua, Khoi Nguyen, “<a href="#">ISBNet: a 3D Point Cloud Instance Segmentation Network with Instance-aware Sampling and Box-aware Dynamic Convolution</a>”, in <i>Computer Vision and Pattern Recognition Conference (CVPR)</i>, 2023</li> <li>• <b>Tuan Duc Ngo</b> and Khoi Nguyen, “<a href="#">Geodesic-Former: a Geodesic-Guided Few-shot 3D Point Cloud Instance Segmenter</a>”, in <i>European Conference on Computer Vision (ECCV)</i>, 2022</li> </ul>	
	<b>Journals</b> <ul style="list-style-type: none"> <li>• Bui MV*, <b>Ngo DT*</b>, Pham H, Nguyen DD., “<a href="#">GAC3D: improving monocular 3D object detection with ground-guide model and adaptive convolution</a>”, <i>PeerJ Computer Science Journal</i>, 2021</li> </ul>	
RESEARCH EXPERIENCE	<b>VinAI Research,</b> <i>AI Research Resident</i>	Ha Noi, Vietnam Aug 2021 - now
<ul style="list-style-type: none"> <li>• Main research topics: 3D Point Cloud Instance Segmentation, 3D Object Detection, and 3D Scene Completion.</li> <li>• Project: “3D Point Cloud Instance Segmentation”               <ul style="list-style-type: none"> <li>– Introduce an efficient and robust sampling strategy and propose leveraging the bounding box as a geometric cue for the 3D point cloud instance segmentation task.</li> </ul> </li> <li>• Project: “Weakly Supervised 3D Point Cloud Instance Segmentation”               <ul style="list-style-type: none"> <li>– Introduce using Gaussian Process to generate high-quality pseudo instance masks from the axis-aligned GT bounding boxes for the 3D point cloud instance segmentation task.</li> </ul> </li> <li>• Project: “Few-shot 3D Point Cloud Instance Segmentation”               <ul style="list-style-type: none"> <li>– Propose a new task of 3D understanding, Few-shot 3D point cloud instance segmentation, and address it with a transformer-based 3D instance segmenter leveraging geodesic distance as a strong geometric cue.</li> </ul> </li> </ul>		

- Project: “Bird-eye-view semantic segmentation from multi-view fisheye images”
  - Participate in the Surrounding-View-Monitoring team to design and develop a new “Bird-eye-view semantic segmentation” feature, including data preparation, modeling, and deploying.
- Awarded as the best Applied Rotation Program project.

TECHNICAL  
TALKS

- Geodesic-Former: a Geodesic-Guided Few-shot 3D Point Cloud Instance Segmenter, *VinAI Research*, [slide](#), [video](#) Nov, 2022

HONORS AND  
AWARDS

- Class of 2021 **Valedictorian** of HCMUT (graduated with the highest GPA (9.62/10.0)) 2021
- Scholarships for outstanding academic achievements, HCMUT 2017 - 2021
- Honda Award (Awarded to top 100 undergraduate students in Vietnam) 2020
- Third Prize in the final round of Digital Race - FPT 2020
- Gold Medals in Vietnam Southern Regional Olympiad in Physics 2015, 2016

TECHNICAL  
SKILLS**Programming skills:**

- Proficient: Python (PyTorch, TensorFlow, numpy, scikit-learn)
- Familiar: C++, C#, Latex

**Tools:**

- ROS, Microsoft Azure, Docker, TensorRT, TensorFlow Lite

## LANGUAGES

- Vietnamese: Native
- English: Proficient
  - IELTS: 7.5 (L: 8.0, R: 7.5, W: 7.0, S: 7.0)

## REFERENCES

[Dr. Khoi Nguyen](#)

Research Scientist  
VinAI Research, Vietnam  
Email: ducminhkhoei@gmail.com

[Assoc. Prof. Minh Hoai Nguyen](#)

Associate Professor  
Department of Computer Science  
Stony Brook University, US  
E-mail: minhhoai@cs.stonybrook.edu

[Dr. Binh-Son Hua](#)

Research Scientist  
VinAI Research, Vietnam  
E-mail: binhson.hua@gmail.com

[Dr. Duc Dung Nguyen](#)

Researcher, Lecturer  
Faculty of Computer Science and Engineering  
Ho Chi Minh City University of Technology, Vietnam  
Email: nddung@hcmut.edu.vn