

# CAO Anh Quan, Ph.D. Student

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## Education

2021 – Now	<b>Ph.D., Inria/PSL Research University</b> in Computer Vision Thesis: Unsupervised 3D scene understanding from image
2019 – 2020	<b>M.Sc., Ecole Polytechnique</b> in Artificial Intelligence and Advanced Visual Computing GPA: 3.99/4.0 (16.9/20) – rank (1 or 2)/10
2018 – 2019	<b>M.Sc., Telecom Paris/University Paris-Saclay</b> in Data Science GPA: 4.0/4.0 (17.1/20) – rank 1/30 (coursework), with honors
2017 – 2018	<b>Master 1, University of Science and Technology of Hanoi</b> in Computer Science GPA: 15.40/20 – rank 1/20
2013 – 2016	<b>B.Sc., University of Science and Technology of Hanoi</b> in Computer Science GPA: 16.1/20 – rank 1/40

## Working experiences

2/2024 – 5/2024	Applied Scientist Intern. <b>Amazon</b> Topic: Improve CLIP fine-tuning on custom dataset using data generated from M-LLM. Supervisor: Maximilian Jaritz, Matthieu Guillaumin and Loris Bazzani.
9/2022 – 11/2022	Visiting Ph.D. Student. <b>Technical University of Munich (TUM)</b> Topic: Uncertainty estimation in 3D scene understanding Supervisor: Raoul de Charette, Angela Dai
2021 – Now	Ph.D. Student. <b>Inria, Paris</b> Thesis: Unsupervised 3D scene understanding from image Supervisor: Raoul de Charette
Summer 2020	Research Intern. <b>Valeo.ai</b> Topic: Cross-attention for partial point cloud registration Supervisors: Gilles Puy, Alexandre Boulch, Renaud Marlet
Summer 2019	Research Intern. <b>Safran</b> Topic: Analyze multivariate time series on sensor data of the helicopter engines Supervisors: Sin-seok Seo and Dohy Hong
Mar 2014 – May 2018	Co-founder <b>Color me</b> ( <a href="http://colorme.vn">http://colorme.vn</a> ) - <b>KEE education company</b> Lead team of developers, develop ERP and online learning system. Teach several design courses
Summer 2016	Research Intern. <b>LIPN, CNRS</b> Speed up the distributed EM algorithm using Locality Sensitive Hashing Supervisor: Mustapha Lebbah

## Publications

arXiv 2023	<b>PaSCo: Urban 3D Panoptic Scene Completion with Uncertainty Awareness</b> Project page: <a href="https://astra-vision.github.io/PaSCo/">https://astra-vision.github.io/PaSCo/</a> <u>Anh-Quan Cao</u> , Angela Dai, and Raoul de Charette
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## Publications (continued)

- ICCV 2023     **SceneRF: Self-Supervised Monocular 3D Scene Reconstruction with Radiance Fields**  
Project page: <https://astra-vision.github.io/SceneRF/>  
Anh-Quan Cao and Raoul de Charette
- BMVC 2022     **Class-Prototypes for Contrastive Learning in Weakly-Supervised 3D Point Cloud Segmentation**  
Project page: <https://github.com/cv-rits/COARSE3D>  
Rong Li, Anh-Quan Cao and Raoul de Charette
- CVPR 2022     **MonoScene: Monocular 3D Semantic Scene Completion**  
Project page: <https://cv-rits.github.io/MonoScene>  
Anh-Quan Cao and Raoul de Charette
- ICCV 2021     **PCAM: Product of Cross-Attention Matrices for Rigid Registration of Point Clouds**  
Project page: <https://github.com/valeoai/PCAM>  
Anh-Quan Cao, Gilles Puy, Alexandre Boulch and Renaud Marlet

## Other research activities




- 2022     **Co-supervisor** of MSc. student: Rong Li  
**Vision and Sports Summer School.** Prague, Czech Republic, <http://cmp.felk.cvut.cz/summerschool2022/index.html>  
**Guest Lecturer** on 3D deep learning, MaSSP 2022 summer school (<https://en.masspvn.com/>)  
**Reviewer**, WACV 2023 (3 papers), ACM MM (1 paper), CVPR 2023 (3 papers)
- 2021     **PRAIRIE AI summer school.** Online, <https://project.inria.fr/paiss/>

## Scholarship / awards




- 2019     **Master scholarship**, 100% tuition fee and living expense from Google, Inria and Ecole Polytechnique
- 2017     **Erasmus Mundus Exchange Scholarship**, Université Sorbonne Paris Nord.
- 2016     **Top 5 Startup with colorme.vn**, Kawaii Bussiness Startup Competition - Japanese Embassy in Vietnam  
**Research Internship Prize**, funding for student with the highest GPA to do internship in France, University of Science and Technology of Hanoi
- 2013 – 2016     **Scholarship for outstanding student**, University of Science and Technology of Hanoi

## References


### Dr. Raoul de Charette


 Researcher at Inria  
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### Dr. Gilles Puy

 Research scientist at Valeo.ai  
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**Prof. Angela Dai**


 Assistant professor at TUM


 <https://www.3dunderstanding.org/>


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 Visiting project supervisor

**Prof. Renaud Marlet**

 Senior researcher at ENPC

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