# CAO Anh Quan, Ph.D. Student

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@AnhQuanCAO

https://anhquancao.github.io/

## **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	Master 1, University of Science and Technology of Hanoi 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
3/2014 – 5/2018	Co-founder Color me (http://colorme.vn) - KEE education company 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**

Project page: https://astra-vision.github.io/PaSCo/Anh-Quan Cao, Angela Dai, and Raoul de Charette

### **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 Poly-
	technique

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

https://cv-rits.github.io/

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Dr. Gilles Puy

Research scientist at Valeo.ai

https://sites.google.com/site/puygilles

gilles.puy@valeo.com

### 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

http://imagine.enpc.fr/~marletr/

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