

Damien Robert

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in damienrobert91

# Damien Robert

## PhD Student – 3D Deep Learning

**Summary** I am a PhD student in the CSAI team of the ENGIE Lab CRIGEN and the machine learning team STRUDEL of the LASTIG lab at IGN—the French Mapping Agency—under the supervision of Loïc Landrieu and Bruno Vallet. My recent work focuses on multimodal and multi-task learning on large-scale point clouds.

## Positions

**2020 – Present : *PhD student, ENGIE Lab CRIGEN - LASTIG, IGN/ENSG***

Multimodal, multi-task learning on large 3D point clouds

**Advisors:** Loïc Landrieu and Bruno Vallet

**2017 - 2020 : *R&D Engineer, SIRADEL, ENGIE***

2 yrs 8 mos

Deep Learning on large-scale, terrestrial/aerial, indoor/outdoor 3D/2D data

**2017 : *Co-Founder, Inspirama***

1 yr

Website gathering book recommendations from inspiring people

**2015 : *R&D Intern, Dassault Systemes***

6 mos

Dimensionality reduction and dynamic system modeling

**2014 : *R&D Intern, Dassault Systemes***

6 mos

UX design

## Education

**2022 : *International Computer Vision Summer School***

Sicily, Italy

CV courses by world-renowned experts in academia and industry

**2011 - 2015 : *Ecole Centrale Lyon, MSc***

Lyon, France

Mathematics, Computer Science, Mechanics, Signal Processing, Automation

**2017 : *CNRS AI Fall School***

Lyon, France

Multi-disciplinary course for AI students and researchers

**2017 : *Udacity, Machine Learning Engineer Nanodegree***

MOOC

Machine learning, mathematics, computer science

**2015 : *Coursera***

MOOC

Introduction to Machine Learning

**2009 - 2011 : *Chateaubriand High School***

Rennes, France

Preparation course for exams to enter French engineering schools

**2006 - 2009 : *Victor & Helene Basch High School***

Rennes, France

High School Diploma with honours, specialized in Sciences and English

## Research Experience

### Publications

- **2022, CVPR Best Paper Finalist** : Damien Robert, Bruno Vallet, Loic Landrieu, *Learning Multi-View Aggregation In the Wild for Large-Scale 3D Semantic Segmentation*

### Reviewing & Expertise

- **Reviewing** : CVPRW Earth Vision 2023, CVPR 2023, CVPRW Earth Vision 2022, ISPRS 2022

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## Teaching

- 2023 : ENSG-IGN, *Course Instructor* (M2-13 hours)  
Deep Learning for Remote Sensing
- 2022 : ISPRS, *Tutorial Instructor* (Students and researchers-1 day)  
Tutorial on Deep Learning for Remote Sensing
- 2022 : ENGIE CRIGEN lab, *Tutorial Instructor* (Students and researchers-1 day)  
Tutorial on 3D Deep Learning, Torch-Points3D & DeepViewAgg
- 2022 : ENSG-IGN, *Course Instructor* (M2-9 hours)  
Deep Learning for Remote Sensing
- 2020 : Ecole Polytechnique, *Teaching Assistant* (M1-12 hours)  
Computer Vision

## Open-source repositories

- 🐙 drprojects/DeepViewAgg

## Talks in Conferences and Invited Talk

🗣 oral   🎓 tutorial   🖼 poster

### 2022

- 🗣 **IGN Self-Supervised Learning for Computer Vision**
- 🗣 **BKG Multimodal learning on 3D and 2D**
- 🖼 **ICVSS DeepViewAgg**
- 🗣 **CV News Best of CVPR'22 issue**
- 🗣 **CVPR DeepViewAgg**
- 🗣 **Ecole des Ponts, IMAGINE lab DeepViewAgg**
- 🎓 **ISPRS 3D Deep Learning for Remote Sensing**
- 🖼 **ISPRS DeepViewAgg**
- 🎓 **ENGIE CRIGEN lab 3D Deep Learning, Torch-Points3D & DeepViewAgg**
- 🗣 **Ecole Polytechnique, LIX lab DeepViewAgg**
- 🗣 **AI4GEO project seminar DeepViewAgg**
- 🗣 **IGN-ENSG Research Days DeepViewAgg**
- 🗣 **GDR ISIS seminar DeepViewAgg**

### 2021

- 🗣 **IGN-ENSG Research Days**

## Skills, Interests and Personal

### Machine learning

- Deep learning
- LiDAR data
- 3D data
- Multimodal learning
- Multi-task learning
- Unsupervised learning

### Computer science



### Languages

- 🇫🇷 Native
- 🇬🇧 Fluent
- 🇪🇸 Intermediate

### International experience

- 2015 - 2016 : Backpacking 🌐
- 2014 & 2015 : Providence, RI 🇺🇸

### Personal interests

