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 poitn 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 notorious 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 :** CVPR 2023, CVPRW Earth Vision 2022, ISPRS 2022

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Teaching
○ 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
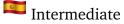○ Multi-task learning
○ Unsupervised learning

Computer science
🐍 🔥 ⬤ ⬡ LaTeX

Languages
🇫🇷 Native
🇬🇧 Fluent
🇪🇸 Intermediate

International experience
○ **2015 - 2016 :** Backpacking 🌐
○ **2014 & 2015 :** Providence, RI 🇺🇸

Personal interests
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