



Erwan VOLENT

PhD student at IMT Nord-Europe
Atmospheric chemistry and air quality

University of Lille, France

Atmosphere and Climate Sciences
Master's degree

24, born on March 12, year 1998
Driver licence and vehicle



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Work Experience

2022- PhD in atmospheric sciences : atmospheric chemistry and air quality observation – since 3rd October

IMT Nord-Europe, Energy Environment Research Innovation and Teaching Center, Atmospheric Sciences, Douai

- « *Evaluating the impact of Volatile Organic Compounds from shipping emissions in the Channel on air quality* »
- Deduce the VOCs sources of shipping emissions from GC-MS, PTR-MS and CRDS data of the measurement campaign in harbour areas of northern France

2022 Experimental research internship in physics and chemistry of the atmosphere applied to aviation – 5 months

Office National d'Études et de Recherches Aérospatiales ONERA, Palaiseau agency

- « *Aviation emissions transformation processes in the atmosphere* »
- Determined the chemical processes undergone by the aviation emissions in an atmospheric simulation chamber (PAM) when burning sustainable aircraft fuel

2021 Computer science internship in atmospheric physics and laser instrumentation – 2 months

Institut Lumière Matière, University of Lyon

- « *Simulation of an atmospheric molecules remote sensing experiment using Dual-Comb spectroscopy* »
- Developed a simulation to perform comparison between real and expected dual-comb spectroscopy datas

Education

2022 Ocean, Atmosphere and Climate Sciences Master's degree

University of Lyon, Lyon École Centrale, France

- Air Quality and Radiation Protection program
- Atmospheric chemistry & physics
- Atmospheric dispersion and Geographic Information System
- Academic projects : Impact of meteorology on atmospheric muon flux, impact of green algae blooming on the hydrogen sulfide pollution in Bretagne

2020 Physics Bachelor's degree

University of Nantes, France

- Electromagnetism and nuclear physics
- Python modelling
- Chemistry and mechanics

2018 Physics and Instrumentation two-year technical degree

Institute of Technology of Saint-Nazaire, University of Nantes, France

- Instrumental Techniques program
- Applied metrology and calibration
- Chemical analysis
- Electronics and instrumentation

Skills

Hands-on knowledge

- Following and creating calibration protocols in XRF spectroscopy
- Performing CPG, HPLC and MS chemical analysis
- Measuring size and number concentration of aerosols using SMPS technique
- Simulating aerosols oxidation with an atmospheric simulation chamber

Computer science knowledge

- Analysing data with python and Matlab
- Studying the dispersion of pollutants with SIRANE
- Working on Windows and Linux OS

Communication

- Submitting weekly science reports with Latex
- Presenting results and projects in front of an assembly

Language

- Spoken and written English, level C1, certified by TOEIC :
 - ✓ Listening 485/495 (B2)
 - ✓ Reading 460/495 (C1)
 - ✓ Total 945/990 (C1)
- Spoken and written Spanish, level B1

Activities and Interests

Nantes Physics Student Association (LAEPtoN)

- Organized the graduation ceremony of Physics Master's degree students
- Organized the visits of CERN, ALICE detector

Zorgh'eau 2 Project (2014/2015)

- Humanitarian project with Zorgho city, Burkina Faso, water sanitation and waste treatment
- Organized the welcome of young Burkinabes
- Participated in the COY 11 (COP21) in order to present the project to a wide assembly
- Self-financed two-week journey in Burkina Faso to witness the construction of wells allowed by the project

Arts

- Practiced Celtic and rock violin in concerts within a band, weekly rehearsals
- Performed comedy theatre with a group during representations at festivals, weekly rehearsals