# ir. Seppe Lampe

PhD Candidate

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Seppe Lampe

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### **Summary**

I am a PhD Researcher with excellent programming skills and knowledge of artificial intelligence (mainly machine learning). Furthermore, do I have a full background in Earth science. I combined both topics during my MSc studies in Applied Computer Science, where I chose the minor 'Environmental Informatics', and graduated summa cum laude as top of the class. The topic of my PhD is 'Detection and Attribution of Trends in Global Wildfire Activity via Machine Learning'. I have an analytical mindset, hard-working attitude and above all, I am a team-player.

### **Education**

Dec 2021 – ongoing	PhD in Engineering
	Vrije Universiteit Brussel
	Detection and Attribution of Trends in Global Wildfire Activity via Machine Learning
Sep 2019 – Aug 2021	Master of Science in Applied Sciences & Engineering: Applied Computer Science
	Vrije Universiteit Brussel
Summa cum Laude	Thesis: Nowcasting of Extreme Thunderstorms over Lake Victoria via Machine Learning
Sep 2017 – Jun 2019	Master of Science in Geology
	Ghent University
Magna cum Laude	Thesis: Iron and Oxygen Isotopic Characterization of Antarctic Glass Cosmic Spherules
Sep 2014 – Aug 2017	Bachelor of Science in Geology
cum Fructu	Ghent University

### **Work Experience**

Aug 2020 – Sep 2020	Royal Observatory of Belgium
	Student Job
	Digitalization of physical seismograms.
July 2019 – Aug 2019	Flanders Marine Institute (VLIZ)
	Student Job
	• Wrote article on the state-of-the-art of deep-sea mining, focusing on Belgian activities.
July 2019 – Aug 2019	ADEDE
	Internship
	<ul> <li>Geophysical detection of UXOs (unexploded ordnances).</li> </ul>

### **International Experiences**

Feb 2020	WaterEurope2020 Project in Nice, France.
Feb 2018 – Aug 2018	Erasmus+ mobility to Bologna, Italy.

# Life Experiences

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Sep 2016 – Aug 2019 | Reporter (2016 – 2017) and Web admin (2017 – 2019) of Geology Student Association (Geologica).

2012 – 2017 | Monitor in youth movement (KSA).

2003 – 2014 | Goalkeeper at local football club.
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# **Additional Training**

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Oct – Nov 2021 | Artificial Intelligence for Earth Monitoring MOOC by EUMETSAT. 
 Dec 2021 | 3^{rd} Joint Training in Atmospheric Composition by ESA, EUMETSAT & ECMWF.
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# **Awards**

Nov 2021 | Finalist of the ie-net prizes: Top 15 engineering thesis in Flanders.

# Languages & Skills

- Languages: Dutch (native), English (C2), French (B1) and Italian (B1).
- Programming Languages: Python, Java and Common LISP.
- Data Analysis: (Pandas, Numpy, Nctoolkit, Matplotlib, etc.).
- Machine Learning: (SciPy, Scikit-learn, Pytorch and Pytorch Lightning).
- GIS.

#### **Publications**

2021

- 1. **Lampe, S.**, Le Saux, B., Vanderkelen, I. & Thiery, W. Long-term Burned Area Reconstruction through Deep Learning. *ICML 2021 Workshop on Tackling Climate Change with Machine Learning* (July 23, 2021).
- 2. **Lampe, S.** *et al.* Decoupling of chemical and isotopic fractionation processes during atmospheric heating of Antarctic micrometeorites (under review). *Geochimica et Cosmichimica Acta* (2021).