

Koen Smits



PROFILE

MSc STUDENT IN NUCLEAR ENGINEERING WITH THE AMBITION TO HELP BUILD A SUSTAINABLE ENERGY FUTURE

CONTACT

+316 18888745
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Marseille, FR

LANGUAGES

Dutch: Native language
English: C2
French: C1
German: A2
Italian: A1

TECHNICAL SKILLS

Python, C++
TRIPOLI-4[®], OpenMC
INCA, ROOT
MATLAB, Mathematica
Linux, Git, LaTeX
SQL
Microsoft Power Platform

SOFT SKILLS

Analytical thinking
Sociable and cooperative
Quick learner

INTERESTS

Running
Diving
Drums and guitar
Geopolitics
History and Economics
IMDB Top 100 movies

EDUCATION

Institut Polytechnique de Paris / INSTN Saclay

Master Nuclear Energy

2023–2025

M2 Track: Nuclear Reactor Physics & Engineering

- Courses taught by experts from academia and French nuclear industry
- Key subjects: neutronics, thermal-hydraulics, materials science, multiphysics, nuclear physics, fuel cycle, reactor design, radiation protection, electrical power grids, control, safety

Sapienza Università di Roma

Erasmus Exchange

2021–2022

Courses in astrophysics (in Italian)

University of Amsterdam

Bachelor in Physics & Astronomy

2018–2022

- Solid foundation in physics, mathematics and programming
- Elective courses in economics and mathematics
- Thesis at CERN ATLAS group: « *Detecting the Higgs through the $H \rightarrow ZZ \rightarrow 4l$ channel using ATLAS open data* »

WORK EXPERIENCE

EDF Marseille

Internship in Instrumentation & Control (DIPDE/SEI/CDV)

2025

- Supported fire detection systems of the French nuclear fleet
- Added new automatic fire response in control command system
- Built a database and app to streamline maintenance and updates
- On-site experience at the Tricastin Nuclear Power Plant

CEA Cadarache

Research Internship in Neutronics (IRESNE/SPRC/LEPh)

2024

- Modeled MASURCA's intrinsic neutron source for the MUSE-4 program
- Conducted simulations with MC Code Tripoli-4[®] to model ADS systems
- Evaluated the significance of the intrinsic source in ADS systems
- Co-author of article currently under peer review

Lyceo Amsterdam

Exam Trainer

2018–2022

High school exam preparation in physics and mathematics

Fischis Skischule Flachau

Ski Instructor

2016–2017

Anwärter and Landes 1 certified, teaching children and adults

Various restaurants and bars, Amsterdam

Waiter and Bartender

2014–2022

Developed skills in hospitality, sociability, and teamwork

HONORS & AWARDS

France Excellence Scholarship

2023

Awarded by Campus France to top European students for graduate study in France

Member of Young Talents

2024

Selected for the think tank for the bilateral Erasmus-Descartes conference on Franco-Dutch cooperation in the energy transition