

DUONG Quentin

Accelerator Physicist (PhD)
&
Nuclear Engineer

PROFILE

+33 (0)7.60.84.11.91

q.duong13@gmail.com

linkedin.com/in/duong-q

duongque.github.io

French driving licence

TOOLS & CODE

PYTHON 

C / C++ 

VBA 

POWERSHELL 

BASH 

LABVIEW 

COMSOL 

FLUKA 

LANGUAGES

 FRENCH – Native language

 ENGLISH – C1

 MANDARIN – A2

 SPANISH – A2

HOBBIES

 CINEMA

 COOKING

 MARTIAL ARTS

 PHYSICS



WORK EXPERIENCE

R&D Engineer – Automation & Data

Jan 2026 – Today
Freelance (Paris – FRANCE)

Design of an end-to-end pipeline for processing unstructured documents (PDF): assisted information extraction, automated structuring and integration into a traceable data system.

➤ Python · Data pipeline · LLM API · Document automation · Traceability

Accelerator Physics Researcher

Oct 2022 – Sep 2025
CERN (Genève – SUISSE)

3-year doctoral program on the measurement and characterisation of electron cloud in the LHC. Regular work in radioactive environments with precision measurement instruments. Daily monitoring of machine operation and participation in CLEAR operations – a 200 MeV electron linac at CERN used for FLASH-VHEE research.

➤ Precision calibration · Instrumentation in radioactive environments · Data acquisition & analysis (7000+ fills) · PyELOUD · Multiphysics simulation COMSOL · Monte Carlo radiation transport code FLUKA

Particle Physics Researcher

Apr 2022 – Aug 2022
KEK (Tsukuba – JAPAN)

5-month internship on cosmic muon measurements in an underground cavern with the COMET experiment at J-PARC. Muons used as reference particles for dosimetric calibration.

➤ Gaseous detector · Dosimetric calibration · Long-duration measurements (C++) · Advanced statistical analysis.



EDUCATION

PhD | Highest Honours

Oct 2022 – Dec 2025
Paris-Saclay University (Paris – FRANCE)

Physics of Particle Accelerators

Thesis: Electron cloud study in the CERN LHC with the Vacuum Pilot Sector.

➤ Particle accelerator technology · Proton beam dynamics · Vacuum systems · Electron-cloud dynamics · Beam-matter interactions · PyELOUD · Machine Learning · Monte Carlo radiation transport code FLUKA.

Challenge-Based Innovation on Particle Accelerators for Healthcare

Jun 2025 – Jul 2025
iFast (Archamps – FRANCE)

10 intensive days on medical innovation through particle accelerators. Complete technical proposal in a multidisciplinary team: "Fibrosis Disruption: SMITE Protocol for FLASH RT-Activated Anti-Fibrotic nanoparticles".

➤ Heavy ion radiobiology · Medical Linacs & Dosimetry · Radionuclide production · Accelerator physics & technology · Science mediation.

Master Degree | High Honours

Jan 2022 – Mar 2022
JUAS (Archamps – FRANCE)

Physics & Technology of Particle Accelerators

➤ Accelerator design · Beam dynamics & instrumentation · Collective effects · Normal & superconducting magnets · Synchrotron radiation · Cryogenics · RF Engineering · Vacuum systems.

Oct 2020 – Dec 2021

Grenoble Alpes University (Grenoble – FRANCE)

Nuclear Physics

➤ Advanced nuclear physics · Plasma physics · Nuclear fusion.

Engineer Degree | Honours

Oct 2019 – Aug 2022
Grenoble INP – PHELM (Grenoble – FRANCE)

Nuclear Engineering & Physics

➤ Reactor physics · Nuclear physics · Beam-matter interactions & Dosimetry · Radiation protection · Neutron transport simulation (Fortran) · Thermohydraulics · Fluid mechanics.