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# Eloi BESNARD

Master of Science Nuclear Energy Final year internship April/September 2025



Engineer in computer science, I am expanding my knowledge to nuclear energy through a second master of science. I am looking for my final year internship in neutronic or reactor physics starting at the beginning of April 2025.

### 1. Education 🞓

#### 2023-2025 - MSc. Nuclear Energy, ENSTA (Saclay, France)

Ongoing Master of Science in **nuclear energy** from ENSTA. This master was created and is sponsored by **EDF**. Specialized in **reactor physics** and **neutronic** (NRPE track).

**Topics studied** : reactor physics, neutronic, nuclear physics, interaction of radiation with matter, materials science, thermo and fluid dynamics, radioprotection, energy production technologies, quantum mechanics, electrical power engineering and mathematics.

 ${\bf Contact}: {\it Anne-Lise \ GLOANEC, \ anne-lise.gloanec@ensta-paris.fr}$ 

#### 2020-2023 - MSc. Computer Science, Télécom SudParis (Saclay, France)

Graduated in **Master in Computer Science** from engineering school Télécom SudParis. **Topics studied** : high performance computing, cryptography, distributed systems, operating systems programming.

Proficiency in C, Python, Git, Linux, MPI, openMP.

#### 2018-2020 - Classes Préparatoires, St Stanislas (Nantes, France)

French equivalent of bachelor in maths and physics classes to prepare for French engineering schools' competitive exams. Rank on Mines-Telecom : 1200/5000.

Topics studied : Mathematics, physics, chemistry, computer science.

### 2. Internships 🕍

#### 2024 - Neutron Instrumentation, Photonis (Brive-La-Gaillarde, France)

**5 months internship** at Photonis, european leader in nuclear instrumentation manufacturer. **Assignment :** Study of the impact of temperature on gaseous neutron detectors (fission chambers and boron-lined proportional counters).

 $\label{eq:constraint} \begin{array}{l} \textbf{Topics}: Interaction of radiation with matter, neutronic, nuclear physics, materials science. \\ \textbf{Contact}: Axel RIZZO, a.rizzo@exosens.com; Kevin IRAZOQUI, k.irazoqui@exosens.com \\ \end{array}$ 

#### 2023 - Software Engineer, CEA (Saclay, France)

**5** months internship at CEA-Saclay, Alternative Energies and Atomic Energy Commission. Assignment : Implementation of a decentralized application for green energy certificates. My work <u>here</u>. Topics : distributed systems (blockchain, smart contracts), cryptography (homomorphic encryption). Contact : Sara TUCCI, sara.tucci@cea.fr; Antonella DELPOZZO, antonella.delpozzo@cea.fr

#### 2022 - Software Developer, Carbometrix (Paris, France)

**Second year internship** of 3 months in French start-up that computes companies' carbon footprint. **Assignment** : Developing a software to compute carbon footprint. **Topics** : data bases, front-end and back-end development. Use of Typescript.

#### 2021 - I.T. Audit, Foch Hospital (Paris, France)

**First year** internship in Foch Hospital, in nephrology department. **Assignment** : Study of general information flow in the department.

### 3. Publications

1) Henry, T., Hatin, J., Besnard, E. et al. Towards trustworthy and privacy-preserving decentralized auctions. J BANK FINANC TECHNOL (2024).

## 4. Extra-curricular activities 🎱

#### Ongoing - Volunteering in climate change association (Paris, France)

Organizing events in Paris to popularise and talk about energy savings that can be done at home. This is done with the association *Les Economes*.

#### 2024 - Music Summer Classes, ICMP (London, UK)

I took singing and music performance classes in London for a week during summer 2024 at the **Institute of Contemporary Music Production**.

#### 2023 - Workaway Experience (Sala, Sweden)

In order to validate my engineering degree I had to spend a month and a half abroad. I refurbished a house in the countryside of Uppsala, in Sweden.

#### 2022 - Tutoring (Paris, France)

I gave maths and physics courses to young students. I also gave free French classes to Sudanese refugees.

What I like to do in my free-time : 🎵 🧕 🚻

I play, tune and fix pianos. I play the guitar and I sing. I play a lot of chess, I workout and I am committed against climate change. I also love the sea, sailing and surfing.

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