

Experiences

Capgemini

March 2023 – Present

Project Leader and Researcher

Paris, France

- Managing projects related to electricity mix and coordinating a team in an agile environment, while also building a numerical proof of concept in Python
- Designed an R&D project involving algorithms based on algebraic topology, leveraging bibliographical sources from theoretical mathematics, applied information technology and physics
- Evaluation and viability of a R&D project in quantum computing

CNRS/Technische Universität Braunschweig

October 2017 – April 2021

PhD Researcher

Bordeaux, France & Braunschweig, Germany

- Development and numerical implementation of mathematical models to simulate metallic quantum systems in Python & Julia
- Creation and optimization of algorithms, numerical methods and computational schemes dealing with nonlinear equations and analysing numerical data to predict quantum phase change

Université de Bordeaux

January 2020 – June 2020

Teaching and mentoring students in physics

Bordeaux, France

- Supervising third-year bachelor's degree students in statistical physics and fluid mechanics for a semester

Internships

Internship in quantum information (2017) & physics (2016)

Grenoble & Toulouse, France

- Theoretical investigation of quantum circuits lacking a well-defined causal order
- Theoretical study of the electrical properties of silver nano-particles

Other Experiences

Associative Parental Nursery

November 2024 – Present

Volunteer Treasurer

Paris, France

- Developing, presenting, and negotiating annual budget plans to various funding bodies while ensuring partnership
- Managed financial operations, ensuring fiscal responsibility and transparency

Homelab & Self-Hosting

- Deploying open-source softwares for personal use and hardening a Linux server

Scientific Publications

- Bishal Poudel. Lattice coherence and local non-local duality in f -electron materials, PhD thesis, Université de Bordeaux, 2022.
- Poudel *et al.*, Journal of Magnetism and Magnetic Materials 520 (2021): 167405.
- Poudel *et al.*, New Journal of Physics 23.6 (2021): 063073.

Education

Université de Bordeaux

2017 – 2022

Doctoral degree in theoretical physics

Bordeaux, France

PhD thesis on "Lattice coherence and local non-local duality in f -electron materials" under the joint supervision of Sébastien Burdin in France and Gertrud Zwicknagl in Germany

Université de Toulouse III

2016 – 2017

Master's degree in applied mathematics

Toulouse, France

Université de Toulouse III

2013 – 2016

Master's degree in theoretical physics

Toulouse, France