

PRESENTATION

I am a student who is just finishing his Physics Master Degree specialized in Material's science in Université Pierre et Marie Curie at Paris. I am looking for a thesis which would be in between material or atomistic simulation and machine learning.

EDUCATION

- **Université Pierre et Marie Curie** Paris, France
Master de physique, Science des matériaux et nano-objets (Materials Science and nano-objects) Sept. 2017 – Present
- **PLAS@PAR summer school** Banyuls, France
<http://www.plasapar.com/en/summer-school-2018> Aug 2018
- **Université Pierre et Marie Curie** Paris, France
Licence de Physique 2017

RESEARCH EXPERIENCE

- **Électricité de France - Institut Photovoltaïque d'Île-de-France** Palaiseau, France
Research Intern Feb 2019 - Aug 2019
 - **Ab initio study of crystallin Silicon with defects and dislocations:** Using Density Functional Theory with the software Crystal and Quantum Espresso to have a better understanding of some absorption rays noticed by experimentalists in the Silicon used in the solar cell.
- **Indian Institute of Science Education and Research** Pune, India
Research Intern May 2018 – Aug 2018
 - **Construction of simple and dual oscillating optical tweezers:** To study micro-rheology of complex fluids (non-newtonians, self propelled particles), I built and calibrated a dual oscillating optical tweezers to trap colloids which from the phase shift of the forcing measure rheological quantities

SKILLS

- **Fortran, Cpp, Python:** I used these different languages for physics numerical simulations during my studies.
- **Density Functional Theory with Crystal and Quantum Espresso:** I am using mostly the Crystal software to do DFT computations in my internship, and I used Quantum Espresso for a project about BaTiO₃
- **Machine Learning, Neural Network and Tensorflow:** I used tensorflow for a machine learning project in my first year of master degree so I can build and train simple neural networks. I learnt the basic concepts of machine learning on this occasion, using the class of Dr. Yann Lecun at Collège de France
- **Bash, unix, ssh:** I am comfortable with the unix terminal and able to write bash scripts to automatize tasks, scrap data in data text files with regular expression.
- **Languages:** Native french speaker, fluent in english, conversational in spanish.

REFEREES

- **Dr. Philippe Baranek:** material science searcher in EDF supervising me for my internship.
- **Dr. Fabio Finocchi:** searcher in material science, who supervised me for an Ab-Initio project in the University.
- **Dr. Vijaykumar Chikkadi:** soft matter researcher in IISER Pune, who supervised me during my internship in India.