

## Education

- 2023–2025 **Master in Geophysics and Earth Imaging**, *Université Grenoble Alpes*, France
- 2022–2023 **International Mobility**, *Australian National University*, Australia
- 2020–2023 **Bachelor in Computer Science and Applied Mathematics**, *Université Grenoble Alpes*, France
- 2011–2019 **A levels and O levels**, *Queen Elizabeth College*, Mauritius, (A-levels, 3 A\*, 2 A)  
(O-Levels, 6)

## Work Experience

- 2019–2020 **IT Intern**, *Beachcomber Hotels*, Mauritius
- Maintained documentation and inventory records.
  - Customized internal software tools for hotel operations.
  - Dealt with SQL-based systems
- Oct 2022 – **Software Engineer Intern**, *Zendesk*, Victoria, Australia
- Jan 2023
- Optimized internal API performance and stability.
  - Participated in code reviews and best-practice compliance.
  - Collaborated with engineering teams to diagnose performance issues.
- Apr 2024 – **Geodynamo Intern**, *ISTERRE*, Grenoble, France
- Jul 2024
- Supervisors: R. Deguen, D. Cébron*
- Developed 2D finite-element models for two-phase geodynamic flows.
  - Ran COMSOL simulations exploring Rayleigh number, buoyancy ratio, compaction length.
  - Identified convection regimes through parameter sweeps.
  - Studied porosity–temperature coupling and latent-heat effects.
  - Produced graphical and statistical analyses of mantle dynamics.
- Sep 2024 – **IT Technician**, *Université Grenoble Alpes*, Grenoble, France
- Present
- Troubleshoot university digital platforms.
  - Assist students with technical issues.
  - Maintain and improve system functionality.
- Feb 2025 – **Nuclear Resonance Team Intern**, *ESRF*, Grenoble, France
- Sept 2025
- Supervisor: I. Kupenko*
- Investigate elastic constants of hcp-iron at high temperature using IXS.
  - Conduct high-pressure experiments at ID14 and ID28.
  - Use diamond anvil cells and synchrotron radiation for extreme-condition studies.
  - Processed IXS spectra using Python (pandas, h5py, lmfit).
  - Implemented peak fitting routines and extracted elastic constants from dispersion curves.
  - Built analysis notebooks to automate background subtraction, normalization, and fitting.
  - Used Python tools to identify linear trends and anisotropy signatures in experimental data.
- Oct 2025 – **Geodynamo Research Engineer**, *ISTERRE*, Grenoble, France
- Jan 2026
- Post-processed simulation outputs using Python to extract wave fields and diagnostic quantities.
  - Used the XSHELLS geodynamo code to run inner-core wave simulations while varying physical parameters.
  - Analyzed trends across simulation runs to study wave propagation.

## Skills

- Programming    Java, C, C++, Python(NumPy, SciPy, matplotlib, pandas ,h5py, pyxshells), SQL, R, MATLAB, Bash, ARM64, OCaml
- Scientific Tools    COMSOL Multiphysics, Numerical modeling

Technical Software engineering, Debugging, Data structures, Machine Learning, Slurm / job scheduling, Parallel computing

Operating Windows, Linux  
systems

Soft Skills Teamwork, time management, decision-making

## Languages

English Fluent

French Fluent