Yiran LU

Data Scientist
Doctor in Nanophysics

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Grenoble, France
yiran-lu-66424012a
Grenoble and surrounding area

SKILLS

Techniques

- Python, C++, SQL, CUDA
- ML & Deep Learning (Tensorflow)
- Statistics Analysis
- Fourier Analysis
- Git/Github, Docker, DevOps
- Data Structure & Algorithms
- Database

Soft Skills

- Teamwork & Autonomy
- Analytical skills
- Rigorous and curious
- Agile (SCRUM)

Languages

- **Chinese** : Native
- **English** : Level C1/C2
- **French** : Level B2/C1

EDUCATION

2025-2026
(6 months of intensive training + 5 months of internship)
DATA SCIENTIST
Campus Numérique in the Alpes
(Link to the program)

2021 - 2025
PHD IN NANOPHYSICS
Université Grenoble-Alpes

2019 - 2021
MASTER OF NANOSCALE ENGINEERING
Université Claude-Bernard Lyon 1

2015 - 2019
BACHELOR OF ENGINEERING
University of Science et Technologie Beijing

Analytical Doctor (PhD) leveraging 4 years of rigorous data processing and **MLOps** skills for a Data Science internship. Expertise in Optimization, Fourier Analysis, and HPC (Python/CUDA) for production-ready solutions.

PROFESSIONAL EXPERIENCE

Institut NEEL, Grenoble
✲ Nov. 2021 to Apr. 2025
PhD Candidate in Physics

- Engineered and deployed high-performance computing (HPC) solutions using Python and CUDA to process and analyze GB-scale datasets from advanced imaging techniques.
- Developed and implemented sophisticated Optimization Algorithms and custom Mathematical Methods (including Fourier-based reconstruction techniques) for materials property quantification, contributing code to an established open-source software package.
- Established robust data governance and management strategies to organize and process experimental data, ensuring a reproducible environment and accelerating analysis cycles.

CEA Grenoble
✲ Mar. to Aug. 2021
Research Intern

- Optimized and developed high-throughput data processing pipelines using Python (including Numba for performance), successfully accelerating calculation scripts from minutes to mere seconds.
- Resolved critical mathematical errors and bugs within legacy analysis software, ensuring the reliability of results, while designing Exploratory Data Analysis (EDA) tools for enhanced data interpretation.

Institut Nanotechnologie de Lyon
✲ Jan. to Mar. 2020
Research Intern

- Engineered and executed the physical setup of a complex optical path using a spatial light modulator for precise wave-front shaping.
- Utilized MATLAB simulation software for complex algorithm implementation (e.g., Fourier-based optimization methods) and data analysis to inspect experimental results and determine optimal system parameters.

HOBBIES

Competitive Programming (C++) / **Chess** / Programming (Common Lisp) / Guitar / Hiking / Via-ferrata