



Haoming LUO

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Skills

- Programming**
 - Python ★★★
 - C, C++ ★
 - Fortran ★★
 - Matlab ★★★★★
- Machine Learning (Certificat)**
 - Sklearn ★★★
 - Keras, PyTorch ★★
- Algorithms**
 - Regression, Random Forest, LSTM
- Database**
 - SQL, Cassandra
- DevOps**
 - Airflow, GitLab et AWS
- Linguistics**
 - French: Professionel
 - English: Professionel
 - Chinese: Native speaker
- International Driving license**

Education

INSA Lyon

PhD in computational mechanics

2017-2021, France

INSA Lyon

Diplôme d'ingénieur

2015-2017, France

Northwestern Polytechnical University

Bachelor's Degree

2012-2016, China

Profile

PhD in Physics and Mechanics with expertise in data science and applied mathematics, enriched by first experience in the financial sector. Passionate about AI, I am seeking stimulating opportunities in large organizations or innovative environments where I can leverage and further develop my skills in the financial sector.

Projects involving data science

1. Fin-tech (Quant & DevOps)

Responsible Data Scientist for the Development of a B-to-C Financial Tool

- Portfolio optimization algorithm (Mean-Variance)
- Automatic Portfolio Construction
- Analysis of Risk Indicators
- OpenAI API

2. Scientific research (Numerical method, ML)

8 scientific publications [Google Scholar]:

- Numerical simulation (finite element solver)
- Construction of analytical models
- Deep Learning for Image Processing (CNN)

Experiences

Data Scientist 2023/08 -

Investboard I Paris

- Portfolio Optimization: Application of financial models (modern portfolio theory) to achieve an optimal risk-return balance in investment portfolios
- Risk Analysis: Use statistical methods to assess risk measures
- Fund Data Management

Postdoc researcher 2021/09 - 2023/02

Ecole Polytechnique I Palaiseau

Project: Definition of the representative volume element for Particle-filled Polymers

- Development of a set of numerical tools in Python (Numpy, Pandas)
 - Region-growing algorithm to reconstruct geometry
- Publication of reference data in the field
 - Nonlinear regression and predictive modeling

Teaching Researcher assistant 2020/10 - 2021/08

INSA Lyon I Villeurbanne

- Numerical modeling of acoustic attenuation in amorphous materials
- Segmentation of multiphase materials structures from microscope images using deep learning (CNN)
- Teaching task: Solid mechanics

Intern 2016/07 - 2016/12

EDF I Lyon

Project: Failure analysis of pressure equipment components

- Methodology for the Analysis of Fracture Performance of High-Pressure Equipment

Ongoing Courses

- Managing Financial Portfolios at the École de Bourse
 - Module: Expert in Market Finance (RNCP 37437BC02)
- Quantitative Techniques for Finance at the Conservatoire National des Arts et Métiers
 - Module: Master's Degree Courses- Finance (RNCP 35913BC01)