



## Zihao-Eric GUO

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📍 Paris, France

🏆 Kaggle Expert

🏠 [Welcome to my homepage](#)

## IT SKILLS

Python (NumPy, Pandas, Sklearn, PyTorch, Plotly), R, C/C++, NoSQL, MATLAB, Power BI, Catia, CAD

Hilbertian analysis, Stochastic Process, statistical learning, Bayesian methods and hierarchical models, Probabilistic numerical methods, Databases, Uncertainty Quantification, Algorithms & Programming, Physics and Fluid Dynamics, Data Science & Machine Learning, Optimization, Signal and Systems, Finite Elements.

## LANGUAGES

- **Chinese:** Native language
- **English:** Fluent (GRE 326)
- **French:** Fluent (DALF C1)
- **Spanish:** Beginners

## INTERESTS



### Aces

- Team spirit;
- independence and adaptability;
- High learning capacity.



Pre-Doc @ Institut Polytechnique de Paris

Interested in: Stochastic Optimization, Math Programming

Data Engineer | Data Scientist



## EDUCATION

Since 11/2023

Paris, France

**Institut Polytechnique de Paris**

Preserving graph performance in an exogenously perturbed environment

09/2021 – 09/2023

Nantes, France

**École Centrale de Nantes**

Generalist Engineer Degree - Applied Mathematics Options

09/2017 – 07/2021

Amiens, France

**Université de Picardie Jules Verne**

double diploma-Bachelor of Engineering, Production Optimization



## PROJECT EXPERIENCE AND INTERNSHIP

Internship – Biostatistics Researcher Inter ([EMBL-EBI](#))

Since 04/2023

2023

Cambridge,

UK

- The research topic is “Simulating the evolution of genomes along large, short-branch phylogenetic trees”

Keywords: R/Python, Sampling algorithm, Cluster, bash (UNIX)

Internship – Data engineer ([IFPEN](#))

04/2022 – 08/2022

2022

Paris,

France

- Analysis of traffic badge validation data and create a dashboard.
- Comparison of data obtained from a traffic model (MATSim) to explore errors.
- Using time series models (Sarimax, Neuralprophet...) to analyze the impact of influencing factors and correct the statistics by predicting the data.

Keywords: Django, HTML/CSS, MongoDB, Git, Pytorch, Statsmodels

Project - Analysis of Tencent product user churn

11/2021 – 01/2022

2021

Nantes,

France

- To predict the user churn rate and provide a foundation for the churn recovery strategy.
- A classification model is developed, the model is evaluated with roc\_auc\_score, and the parameters are tuned with GridSearchCV.

Keywords: Sklearn, Machine Learning

Project – Build a student management system

12/2019 – 02/2020

2020

Shenyang,

Chine

- Built in VC++ 6.0, Windows platform, utilizing the C language, using structures to encapsulate variables and chained tables for modification operations makes it easier to manage fundamental student information.

Keywords: C language, OOP



## SCIENTIFIC RESEARCH EXPERIENCE

Research - Multi-task learning for Bayesian Networks

Nantes Digital Science Laboratory (LS2N)

Oct.22 - Apr.23

Nantes, France

Keywords: C++, Linux, Bayesian Networks, Transfer learning

Research - Extreme value theory with environmental applications

École Centrale de Nantes (ECN)

Keywords: Statistical Modeling

Essay - CNN text classification method based on simulated annealing method

ACM - International Conference Proceeding Series (ISBN: 978-1-4503-8432-2)

Essay - Restoring Accessibility During Urban Rail Disruptions via Bus Network Redesign

Transportation Research Board (TRB) 104th Annual Meeting

Competition - Based on non-stationary thermal conductivity, the design of special garments for high-temperature operations

2019 China Mathematical Modeling Competition Second Prize in Liaoning Province