

Zihao-Eric GUO

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📍 Châtenay-Malabry, France

🏆 Kaggle Expert

🏠 Welcome to my homepage



Google Cloud Certified
Professional Machine
Learning Engineer

VERIFIED CREDENTIAL

EDUCATION

• Institut Polytechnique de Paris (IPP)

Since 11/2023 – Paris, France

PhD – Specialization: MATHÉMATIQUES ET INFORMATIQUE. Expected graduation: **Dec. 2026**

• École Centrale de Nantes (ECN)

09/2021 – 09/2023 – Nantes, France

Generalist Engineer Degree (MSc)
– Applied Mathematics Options

• Université de Picardie Jules Verne (UPJV)

09/2017 – 07/2021 – Amiens, France

Bachelor of Science (BSc), Optimization

IT SKILLS

Python, Algorithms, Optimization,
Gurobi/CPLEX, PyTorch, Transformer, Diffusion Model, LLM/AIGC,
AI Agent/RAG, C++, LoRA, GRPO,
Reinforcement fine-tuning (RFT),
Supervised Fine-Tuning.

LANGUAGES

• **Chinese:** Native language

• **English:** Fluent (GRE 326)

• **French:** Fluent (DALF C1)

INTERESTS



STRENGTHS

- Teamwork;
- Autonomy and adaptability;
- Strong learning ability.

📅 Seeking a permanent position (CDI) from October 2026

Focus: Optimisation | AI Agent/AIGC | LLM



Data Scientist | AI Engineer | Algorithm Engineer



INDUSTRIAL EXPERIENCE

2025

Shanghai,
CHINA
on-site

Internship – Algorithm Engineer (Huawei)

07/2025 – 11/2025

- Built a multimodal contrastive-learning framework aligning 3D point clouds and wireless channel data to predict target-location channels, validated against ground truth.
- Proposed an integer-partitioning algorithm extending RIV to non-contiguous resource-block allocation.

2023

Cambridge,
England,
UK
on-site

Internship – Genomics Algorithm Developer (EMBL-EBI)

04/2023 – 09/2023

- Developed phylogenetic simulation algorithms for large, short-branch trees with up to 500,000 genomes.
- Automated Python/R/Bash cluster benchmarks of topology, likelihood, runtime and memory; achieved >100x speedup with competitive accuracy.

2022

Rueil-
Malmaison,
Île-de-France,
FRANCE
on-site

Internship – Data Scientist (IFPEN)

04/2022 – 08/2022

- Analyzed MongoDB transit-validation data, built a mobility KPI dashboard and compared observations with MATSim simulations.
- Built SARIMAX/NeuralProphet models to explain drivers, forecast passenger flows and correct estimates.

2021

Nantes,
France
remote

Internship – Data Scientist (Tencent)

11/2021 – 01/2022

- Engineered 30+ features from approximately 100,000 records; compared four GridSearchCV-tuned scikit-learn churn models.
- Achieved approximately 0.86 ROC-AUC; the top 20% risk segment captured around 55% of churners.



SCIENTIFIC RESEARCH EXPERIENCE

2023–2026

Palaiseau,
FRANCE

Fixed-term Contract (CDD) – Research Scientist (IP-Paris)

Oct. 2023 – Oct. 2026

- Optimization methods for structure-preserving redesign, with applications to routing problems.
- Proposed methods including Smart Predict-and-Optimize and GPU-accelerated bucket graph labelling algorithms.
- Teaching Assistant at ENSTA Paris: *MSc – Intelligence artificielle et données* (24 h/year).

LLM, AIGC & AI Agent Research

Since 2025

- Developed **EvoHGS**, an LLM-guided AI Agent for VRPs via solver-in-the-loop optimization; fine-tuned with SFT, LoRA and GRPO, its 8B model outperformed GPT-5 nano (estimated at over 100B parameters) and achieved SOTA results.
- Adapted MiniMind with PyTorch and Hugging Face/verl for an end-to-end lightweight LLM workflow.

Multi-task learning for Bayesian Networks

Oct. 2022 – Apr. 2023

Nantes, France – LS2N; Bayesian Networks, Transfer learning

Selected Publications

(For more publications, please visit my [Google Scholar profile](#).)

CNN text classification method based on simulated annealing method (*ACM International Conference Proceeding Series*)

Rate variation and recurrent sequence errors in pandemic-scale phylogenetics (*Nature Methods*)