Horace Guy

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Machine Learning Engineer

Professional experience

Sep 2023 - Dec 2023 ▼ *Founder in residence* at **Entrepreneur First** (Paris, France)

Part of a curated community of future founders, working to build globally impactful companies together.

Formed 3 different teams tackling hard problems with software.

May 2019 - Feb 2023 ▼ *Data scientist* in R&D at **Deepki** (Paris, France)

Data science improving energy efficiency of buildings.

Working from research to deployment in production of machine learning models:

- A tool to query 220 heterogenous databases with HTTP REST APIs
- Bayesion modelling of consumption based on location, floor area and usage
- Gap-filling of consumption data to estimate missing monthly points: 2x improvement
- Mentoring and training of interns and junior staff members

Feb 2018 - Aug 2018 ▼ *R&D engineer intern* at **Stratagem Technologies** (London, UK)

Predictive modelling of NBA basketball in order to advise investment decisions:

- Prediction of the number of Markov transitions remaining during a game
- Implementation of a risk controller framework with property-based and fuzz testing

Jul 2017 - Dec 2017 ▼ *Data analyst intern* at **Amazon** (Paris, France)

In charge of business intelligence for international (EU + Japan + Canada) Ad services:

- Responsible for weekly business review, monitoring activity through KPIs
- Ad-hoc analysis on performance, revenue attribution, customer retention

Sep 2016 - Dec 2017 ▼ *Mathematics Teaching Assistant* at **Lycée Charlemagne** (Paris, France)

Conducting oral exams for MPSI students preparing the highly competitive entrance exams to the French engineering "Grandes Ecoles" (two hours per week)

Academic experience

2015 - 2019 ▼ *MSc Engineering* at **Ecole Centrale Paris** (now CentraleSupélec)

Major: Applied Mathematics in Data Science.

Relevant courses includes: random modelling, convex and discrete optimization, machine learning, deep learning, reinforcement learning, natural language processing.

Thesis: Detecting anomalies and monitoring urban furniture energy consumption

2013 - 2015   ▼ *Higher School Preparatory Classes* at **Lycée Charlemagne** (Paris, France)

MPSI - MP*: Two-year undergraduate intensive course in mathematics, physics, computer science. Ranked 201/3370 of Concours Centrale-Supélec national entrance exams.

Skills

Programming
- Scientific Python: Numpy, Pandas, Scikit-learn, JAX, Numpyro, Matplotlib
- HTML & CSS & JS, Elixir, Git, Bash, CI/CD, Unix tools, Docker, Ocaml

Language   French (Native) | English (Proficient) | German (Fair)

Activities and interest

Hobbies   Handball | Snowboarding | Surfing | Improv & stand-up comedy

Activities   Gala Centrale Paris (Equinoxe) student organisation (2017 President)

Publications

Peer-reviewed
- Horace Guy, Simon Vittoz, Giulia Caputo, Thimothée Thiery, *Benchmarking the energy performance of European commercial buildings with a bayesian modeling framework*, Energy and Buildings, Volume 299, 2023

Other
- Kaggle: *Impacts of interventions on the propagation of COVID-19 with mobility data*
- *Introduction to probabilistic programming*
- *Regression et descente de gradient*
- *Le gradient derrière l'intelligence artificielle*
- *A gradient-descent visualizer*
- *A probabilistic betting framework*