

Paul Garnier

Last update on February 8, 2024

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Blog : From Navier-Stokes to Markov Chains, a blog about who knows what

Education

MINES Paristech - PSL Master Degree in Science & Executive Engineering	PARIS, FRANCE 2017 – 2021
Lycee Sainte-Genevieve Classe preparatoire MP*/MPSI - Mathematics and Computer Science Options	VERSAILLES, FRANCE 2015 – 2017
French high school of Shanghai Baccalaureat - Mathematics Option and European Section	SHANGHAI, CHINA 2012 – 2015

Professional experience

Flaneer , a startup providing computer in the cloud for the creative industry Founder - Co-CEO & CTO	PARIS, FRANCE Sep '20
<ul style="list-style-type: none">• Co-founded and led a startup that provides cloud computing solutions for the creative industry, raising \$1.4M in funding from top global VCs and Angels• Developed a full cloud Virtual Desktop Infrastructure (VDI) system with AI cost optimization, winning 5 RD awards from different government and private organizations• Achieved 50% MoM revenue growth for over a year, serving over 10k+ users from SMEs and enterprise customers in media, film, gaming, and engineering industries across 20+ countries• Recruited and managed a team of 8, creating a product 3x faster than any other solution on the market using AWS and Serverless+Python	

CNRS , fluid dynamics team Applied Scientist	PARIS, FRANCE May '20 – Aug '20
<ul style="list-style-type: none">• Conducted research on the applications of Deep Reinforcement Learning (DRL) for fluid mechanics and mesh optimization• Created a framework that coupled DRL and fluid mechanics using Keras, Gym, and Fenics	

ARTEFACT , consulting company specialized in AI & Data Science Associate Intern	SHANGHAI, CHINA Jan '20 – Apr '20
<ul style="list-style-type: none">• Built machine learning models for propensity modeling and fraud detection for Danone's supply chain ecosystem• Compiled an essay on the use of AI Data Science in China, and the differences with the United-States	

Amazon , search relevance team Applied Scientist Intern	PALO ALTO, US Aug '19 – Jan '20
<ul style="list-style-type: none">• Worked on the search team that helped customers find the best products among over 1 billion items on amazon.com• Created and used advanced neural networks and transformer models that refined the relevance and ranking of search results• Conducted research on different scoring and loss functions to optimize the performance and accuracy of the models• Achieved a 7.19% increase in NDCG@10 using listwise loss, transformers and textual features	

Mines Paristech , fluid dynamics team Fluid mechanics and Reinforcement Learning Researcher	PARIS - NICE, FRANCE May '19 – Aug '19
<ul style="list-style-type: none">• Development of DRL to several fluid mechanics problems. (Keras, Gym, and Fenics)• Development of an open source project for Fluid Mechanics and DRL, a blog post and a paper with over 100s citations.	

Mines Paristech, missions for H4D and IOMA

PARIS, FRANCE

Machine Learning Consultant

Jun '19 – Aug '19

- Case study and proof of concepts for these two companies, in order to launch two PhD's.
- Development of several models related to time series, data anonymization, NLP and computer vision. (Keras, Tensorflow)

Ministry of Culture, application referencing every cultural event in Paris

PARIS, FRANCE

Co-founder of Arts Around Me

Sep '17 – Mar '19

- Created an app in November 2017 about arts in Paris, and started to work with the Ministry of Culture in January 2018.
- Used Machine learning and statistics to improve the Pass Culture recommendation algorithm.

Carrefour, blue collar internship

PARIS, FRANCE

Shelving of fresh products

Jan '18 – Feb '18

- Worked as a shelver of fresh products at Carrefour Auteuil store (more than 320 employees)
- Integrated into a team of 20 and learned about the world of mass distribution
- Ensured product quality, customer satisfaction, and inventory management

The Socksbox, production and sells online of high quality socks

PARIS, FRANCE

Co-owner : Data Sciences and Marketing

Jul '17 – Oct '18

- Data analysis to get a better understanding of our clients. (Tensorflow, GoogleAnalytics and SQL)
- Created campaign about sustainable development and green economy : recycling unusable pairs of socks.

Projects

Codingame - AI Contests: Development of artificial intelligence using machine learning, MCTS, MinMax and evolutionary algorithm for games. **Top 1% over 10 contests.**

Creation of a robot to automatically harvest cauliflower: Created our own dataset after several fields visits and trained a ML model. Used a Raspberry PI to add the model to an existing robot.

Oliver Wyman Datacase Challenge: Contest about parkings in Paris, **finished 3rd/150**

MINES Paristech Department of Energy efficiency: Research on electric car's battery and its utilisation depending on the driver and external conditions. Used statistics and algorithms to develop a model matching the user's profiles with different types of battery

Research Papers

Evaluating Soccer Player: from Live Camera to Deep Reinforcement Learning, a preprint by P. Garnier, T. Gregoir

A review on Deep Reinforcement Learning for Fluid Mechanics, published in Computers & Fluids, by P. Garnier, J. Viquerat, J. Rabault, A. Larcher, A. Kuhnle, E. Hachem

Semi-Supervised Learning for Bilingual Lexicon Induction, a preprint by G. Guinet, P. Garnier

Skills & Hobbies

Languages: French (*mother tongue*), English *fluent* (TOEFL 111/120), Mandarin Chinese (HSK 2).

Sports: Ultra-trail runner, 7+ sport climber, regatta in France & Hong-Kong

Mountaineering: Multi-pitch climber, TD Alpine itinerary, Ice climbing