

# Pierre Marion

pierre.marion@mines.org

10 rue de Savoie  
75006 Paris, France  
☎ + 33 (0)6 81 05 26 82

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## Education

- 2019 - 2023 **Sorbonne University**, Paris, France.  
- I am currently enrolled in a PhD program in theoretical Machine Learning, about the links between deep learning and partial differential equations
- 2015 - 2019 **École Polytechnique**, *the most selective French engineering school*, Paris, France.  
- I graduated with a MSc degree in Applied Mathematics (3.98 GPA, top 1% of my class)  
- I was admitted to Corps des Mines, a highly selective program for executive careers
- 2013 - 2015 **Preparatory Classes**, Lycée du Parc, Lyon, France.  
- Intensive program in Mathematics, Physics and Engineering

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## Work experiences & projects

- Nov. 2018 - **Engie**, *a French multinational electric utility company*, La Défense, France.  
Aug. 2019 - I competed for public tenders for urban infrastructure projects (€5 million - €1 billion)
- Mar. 2018 - **University of Montreal**, Department of Computer Science and Operations Research.  
Aug. 2018 - I extended LatNet Builder, an open-source software for quasi Monte-Carlo methods  
- I developed a novel algorithm for quasi Monte-Carlo point sets evaluation  
- I was awarded the École Polytechnique Grand Prize of Research Internships
- Sep. 2017 - **Participation in the Jupyter project**, Quantstack & Société Générale.  
Mar. 2018 - I developed open-source interactive widgets in Python and JavaScript, and published a guest post on the Jupyter blog: “Authoring custom Jupyter widgets, a hands-on guide”  
- I was awarded a Jupyter scholarship to participate to JupyterCon 2018 in New York City
- July 2017 - **Société Générale**, *a French multinational investment bank*, La Défense, France.  
Aug. 2017 - I conceived the software architecture of a web platform inside the investment bank
- Sep. 2016 - **University projects**, tutored by researchers in public institutes (Inserm and Inria).  
Dec 2017 - Identification and visualization of clinical care pathways in electronic health records  
- Comparison of real-parameter global optimizers  
- I developed operational skills in data mining and programming
- Oct. 2015 - **EPIDE**, *French Public Institution for Youth Employability*, Marseille, France.  
Mar. 2016 - I mentored a group of thirty young adults, lacking behavioral and social skills

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## Publications

- 2019 P. L’Ecuyer, M. Godin, A. Jemel, J. Keutchayan, P. Marion, and F. Puchhammer, “LatNet Builder: A Factory for Quasi-Random Point Sets” (forthcoming)
- 2019 P. Marion, M. Godin, and P. L’Ecuyer, “An algorithm to compute the t-value of a digital net and of its projections” (submitted to Journal of Computational and Applied Mathematics)

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## Languages & Computer Skills

**Languages** English: Fluent

- I passed the TOIEC test with maximum score (990/990) in 2018

**Programming** (*fluent*): Python, C++, (*familiar*): Pytorch, Java, scikit-learn

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## Interests

**Running** I ran several half marathons and one marathon (2018 Lyon Marathon).

**Board games** I play complex German-style board games and strategy games.