

Louis F. Abraham

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Skills and Tools

Research experience: Deep learning, algorithms, cryptography, SMT solving, genetic programming.

Programming languages: Python 3 (CPython, **PyPy**), **Cython**, C, Javascript (DOM), Java, OCaml...

Software / Libraries / Tools / Technologies

- Scientific programming: **NumPy**, **SymPy**, **SageMath**.
- Data science: **scikit-learn**, **pandas**, **h5py**.
- Deep learning: **PyTorch**, **Keras**, **Tensorflow**, **Caffe2**.
- High Performance Computing: **Numba**, **NumExpr**, **SCOOP**, MPI.
- Web: search, scraping, automation, development (**Bootstrap**, **Flask**, **Vue.js**), servers (**nginx**), hosting, DNS.
- Cybersecurity / Network / Reverse engineering: Kali Linux suite (**mitmproxy**, **aircrack-ng**, **BeEF**, **Metasploit...**), decompilation (AS3 P-code, x86 assembly)...
- Miscellaneous: Unix, **git**, Blockchains, **Ethereum**, SQL, NoSQL, ORM, regular expressions, **OpenCV**...

Education

2018 - 2019	Master of Science ETH in Computer Science - ETH Zürich
2015 - 2019	Ingénieur Polytechnicien - École polytechnique (Palaiseau) <i>Majoring in computer science and mathematics in France's top scientific school. Youngest candidate accepted (became senior bachelor student when 17 years old).</i>
2017 - 2018	BA Philosophy - Paris Nanterre University
2013 - 2015	Classe préparatoire aux Grandes Écoles MP-Info - Lycée Louis-Le-Grand (Paris)
since 2007	Music (piano, harmony, analysis, conducting and other topics) - Conservatoire de Paris

Experience

2018	Deep Learning Researcher - ENS Ulm / EHESS / CNRS <i>ABX-discriminability measure to evaluate self-supervised computer vision models Supervised by Ronan Riochet and Emmanuel Dupoux</i>
2017	Study on Digital Identity in France <i>Study commissioned by the French Ministry of the Interior's Centre for Advanced Studies (CHEMI) and carried out along with the ENS Ulm (Prof. David Naccache).</i>
2017	e-FICC Quant Researcher - BNP Paribas CIB, London
2017 - 2018	Founder & Head of BADaS (<i>Binet Algorithmes et Data Science</i>) Student association for competitive programming , data science and CS events
2016 - 2017	Oral examiner in mathematics - Lycée Louis-Le-Grand (Paris)
2015 - 2016	Administrative analyst - French Ministry of Foreign Affairs
2015	French army officier training - École polytechnique

Awards

- **GSA Ultra 2018**: 3rd prize winner.
- **ACM ICPC SWERC** (2016, 2017): Competitive programming competition among the universities of the world. Captain of Polytechnique's team that ranked 21 amongst 77 European teams in the regional contest.
- **Concours Général** (2013): Most prestigious academic competition in France. Distinction in Mathematics, youngest laureate of all subjects.

Others

Languages	French (native speaker), German (Goethe-Zertifikat C1), English (TOEIC 990/990).
Music	Piano: winner of international contests, concert soloist with orchestral accompaniment.
Sports	Horse riding, Skiing, Swimming, Scuba diving.
Hobbies	Literature, Philosophy, Competitive programming, Anime, Video games.
