

Cyril Falcon

Ph.D., R&D engineer

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🌐 cyril-falcon.github.com

in [falcon-cyril](https://github.com/falcon-cyril)

French citizenship

Born on August 4th, 1994 in Bordeaux



With a Ph.D. in Pure Mathematics from the Université Paris-Saclay, I work in the algorithm R&D for stochastic process detection, estimation, and forecasting, including through statistical learning applied to time series. I thrive in multidisciplinary and demanding scientific environments.

Work experience

- CDI R&D engineer in Navigation algorithms**, Exail, Saint-Germain-en-Laye.
23/05– World 1st company in advanced technologies for resilient navigation.
- Development of inertial navigation algorithms using multi-sensors data fusion.
 - Design of statistical tests for performance monitoring of Kalman filters.
 - Statistical modeling of sensor errors and evaluation of navigation performance.
 - Publication of 2 articles in international conference proceedings.
 - Supervision of 3 internships (19 months total), including a project on RNN-aided Kalman filtering.
- CDD Research scientist in Pure Mathematics**, LMO (Université Paris-Saclay, CNRS), Orsay.
18/08–22/08 World 1st university in Mathematics.
- Publication of 3 articles in international peer-reviewed journals.
 - Oral presentations, in French and English, of my results in about 10 seminars.
 - Participation in about 100 presentations in French and English by international experts.
- CDD Teaching assistant in Mathematics**, Université Paris-Saclay, Gif-sur-Yvette.
18/09–21/08 Nearly 200 hours of tutorials for about 10 groups of about 30 students.

Academic background

- 2023 Doctoral degree in Pure Mathematics**, Université Paris-Saclay.
- Laureate of a research grant from the Ministère de l'Enseignement Supérieur et de la Recherche.
 - Organization of about 15 conferences for about 40 higher education students.
 - Supervision of about 10 workshops for about 15 primary and secondary school pupils.
 - Organization of about 30 fundraising to offer gifts for new doctors.
- 2018 Double degree Master-Magister in Mathematics**, Université Paris-Saclay.
2015 and 2017 laureate of a €10,000 grant for excellence from the Jacques Hadamard Foundation.
- 2017 Agrégation externe in Mathematics, 67th/3582**, Ministère de l'Éducation nationale.

Computer skills

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|----------|-------------------------------|--------------|----------------------------------|
| MATLAB | (numerical analysis) Advanced | Python | (data analysis) Advanced |
| Simulink | (modelling) Intermediate | Shell script | (scripting) Expertise |
| Git | (version control) Advanced | TeX | (scientific documents) Expertise |

Language skills

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| French | Mother tongue | English | Fluent |
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Miscellaneous interests

- Sports** Swimming, running, MTB riding and mountain hiking.
- Puzzles** Puzzles creation relying on steganographic methods.