Cyril Falcon

Ph.D., R&D engineer

Saint-Germain-en-Laye
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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
23/05–
R&D engineer in Navigation algorithms, Exail, Saint-Germain-en-Laye.
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, including a project on RNN-aided Kalman filtering.

CDD
18/08–22/08
Research scientist in Pure Mathematics, LMO (Université Paris-Saclay, CNRS), Orsay.
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
18/09–21/08
Teaching assistant in Mathematics, Université Paris-Saclay, Gif-sur-Yvette.
Nearly 200 hours of tutorials for about 10 groups of about 30 diverse 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

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

Language skills

French	Mother tongue	English	Fluent

Miscellaneous interests

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