François Cinotti
Computational Biologist

Contact

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Key Skills

Python / MATLAB / R
HPC : MPI, bash
Reinforcement Learning
Behavioural modelling
Bayesian inference
Software design
Data analysis
Scientific communication

Education

2016-2019 : PhD in computational neuroscience, Université Paris Sorbonne

2014-2015 : MSc in cognitive neuroscience, Université Paris Descartes

2013-2014 : MSc in interdisciplinary approaches to life sciences, Université Paris Diderot

2011-2014 : Engineering degree from AgroParisTech, a French "Grande Ecole"

Profile

With a background in biological modelling, and a particular focus on learning and decision-making behaviour, I am keen to expand my computational skillset in the field of data analysis. Analytical and intellectually curious, I am looking for an opportunity to solve real-world problems in a business setting.

Experience

February 2022—Present
Postdoctoral research assistant • University of Reading

- Designed a model of thrombosis including fluid dynamics.
- Parameter optimisation on a high performance computing cluster.
- Collaboration with an interdisciplinary team of researchers involving philosophers and scientists, multiple publications and scientific talks.
- Built an app in R shiny for the interactive analysis of biological data.

January 2021—February 2022
Postdoctoral research assistant • University of Oxford

- Cleaned and analysed an experimental dataset.
- Designed, fitted, and simulated a model of foraging behaviour based on long- vs. short-term reward rates comparison.
- Collaborated remotely with a team of American researchers which led to a successful publication.
- Supervision of a master student internship.

June 2019—January 2021
Postdoctoral research fellow • University of Nottingham

- Developed a Bayesian method for estimating connection rates.
- Wrote and published results in the Journal of Neuroscience.
- Conference presentation of results.

September 2015—June 2019
Research engineer/PhD • Institute of Intelligent Systems & Robotics, Paris

- Designed models of meta-learning, reinforcement learning, model-based vs. model-free learning behaviour.
- Fitted the models to experimental data through optimisation of log-likelihood.
- Analysis of experimental and synthetic data (repeated-measures ANOVA, parametric and non-parametric tests, PCA).
- Wrote and published results in peer-reviewed journals.