Hugo Talibart

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EDUCATION

2016 – 2017

Master's Degree in Theoretical Computer Science

Université de Rouen, France
Automata theory, String Algorithms in Bioinformatics

2012 – 2017

Engineering Degree in Mathematics

Institut National des Sciences Appliquées de Rouen (INSA Rouen), France
Statistics, Artificial Intelligence, Operations Research

2012

Scientific Baccalaureate

Lycée Émile Zola, Rennes, France
Major in mathematics - First class honors

EXPERIENCE

November 2017 – now

PhD thesis: *Modelling proteins with long-distance dependencies*

Dyliss team, Inria, Université de Rennes 1 (France)
supervised by François Coste and Jacques Nicolas

Introduction of an optimal method to align coevolutionary models representing proteins with long-distance dependencies, with application to homology search.

May - October 2017

End-of-studies internship

LITIS Lab, Université de Rouen (France)
supervised by Pierrick Tranouez

Supervised learning of emergent structures in agent-based simulations using convolutional neural networks.

June - September 2016

International internship

Algorithms & Bioinformatics Team, King's College London (United Kingdom)
supervised by Kathleen Steinhöfel

RNA meta-stable secondary structures clustering.

ARTICLES

- W. Dyrka, M. Pyzik, F. Coste and H. Talibart. "Estimating probabilistic context-free grammars for proteins using contact map constraints". In: *PeerJ* 7 (2019), e6559

COMMUNICATIONS

- H. Talibart and F. Coste. "ComPotts: Optimal alignment of coevolutionary models for protein sequences". In: *JOBIM 2020-Journées Ouvertes Biologie, Informatique et Mathématiques*. 2020
- H. Talibart and F. Coste. "Using residues coevolution to search for protein homologs through alignment of Potts models". In: *CECAM 2019 - workshop on Co-evolutionary methods for the prediction and design of protein structure and interactions*. 2019
- H. Talibart and F. Coste. "Using residues coevolution to search for protein homologs through alignment of Potts models". In: *JOBIM 2019-Journées Ouvertes Biologie, Informatique et Mathématiques*. 2019

TEACHING EXPERIENCE

2018

Introduction to computer programming in Python

ISTIC, Université de Rennes 1 (France)

Tutorials for 20 bachelor's degree students (total: 24 hours). Introduction to basic programming paradigms (loops, lists, functions), implementation in Python.

SCIENCE POPULARIZATION

2018

Le Langage comme Inspiration: very short film for Sciences en Cour[t]s 2018 festival. 1st jury prize + "audience's favorite" award

SKILLS

Languages

- French – native speaker
- English – fluent (TOEIC: 975/990)
- Spanish – notions

Computer skills

- Python
- C/C++
- LaTeX
- Matlab
- Java
- Bash