



## Senior Data Science Researcher

My project is to improve healthcare by leveraging AI and real world data. I have a long-time research experience in data science to analyse biological and medical data.

## Work Experience

### RESEARCHER, CEA SACLAY

- since 2019 ▶ Leader of a research project focused on developping AI and multiscale complexity analysis of ECG signals to monitor the depth of anesthesia - Univ. Paris-Saclay - I2BC, CHRU Tours
- 2019-13 ▶ Head of the data analysis (statistical modelling and AI) for a project on protein-nanoparticles interactions to predict environmental and health impacts of nanomaterials
- 2013-03 ▶ In the framework of a system biology project dedicated to the production of hydrogen using cyanobacteria, I led the data analysis strategy to consolidate a multiscale *omic* network
- 2003-00 ▶ I designed and developed a LIMS for the analysis of sequence based gene expression data
- Students:** >20 masters; 5 thesis; 2 post-doctorate.  
**Grants:** >10 grants (4 with administrative and leading duties)  
**Publications:** >30 (Nature, PNAS, Langmuir, Genes Dev)  
**Appointed member of the « Institut des Systèmes Complexes IdF » board of directors (2008)**

### POST-DOCTORATE, ECOLE POLYTECHNIQUE, COMPUTER SCIENCE LAB. (LIX)

- ▶ Designing of a novel multi-classes clustering algorithm using isotonic regressions

### PH.D THESIS, INRIA ROCQUENCOURT

- ▶ During my thesis I work on massive sequence alignment and clustering

### MILITARY PERIOD, OFFICER, DEPARTMENT OF DEFENSE

- ▶ Head of the statistical unit of the « bureau des études générales »

### ENGINEER (PART TIME), BARCLAY'S BANK, PARIS

- ▶ Developer for the derivatives trading desk (front office)

## Education

- 2022 Habilitation à diriger des recherches (HDR), Université Paris-Saclay  
*statistical methods, inference and complexity for biology and health data*
- 1998 Applied Mathematics Ph.D (with honors), Paris IX Dauphine University  
*microbial genomes analysis, contribution of the pyramidal clustering*
- 1993 MS of Applied Mathematics (major of the data analysis option), Paris IX Dauphine University

## Skills

**Management:** team leading, project management, grant application (writing & leading)

**Science Organization:** journals reviewer/editor, conferences organizer, member of commissions and juries

**Scientific knowledge:** Statistics, Clustering, AI (statistical & Machine Learning), Graph theory, Bioinformatics

**Technical skills:** Programming, ML frameworks, DevOps, System & HPC

**Languages:** English (professional, work language), French (native)

## Reference

Emmanuel Godat Ph.D MD, resuscitator anesthesiologist CHRU Tours

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