

Nicolas COMTE, Ph.D



PROFILE

R&D Engineer with a Ph.D in Computer Science. I have experience as a software engineer at Inria, followed by roles as an R&D engineer and Ph.D. student in collaborative projects involving Inria, Grenoble Hospitals, and Anatoscope. My expertise lies in machine learning, computer vision, and graphics, with a focus on their applications in biology and biomedical imaging.

CONTACT DETAILS

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cometicon.github.io

PERSONAL INFORMATION

Citizenship French

Family Married, 1 child

Languages French, english

SKILLS

Computer Sci. Deep learning, Computer Vision, Computer graphics, Computational biology

Software dev. C++, Python, Git

Sci. computing Pytorch, Scikit-learn, R, Matlab, Sofa

Communication \LaTeX , HTML, Gimp, Krita, Inkscape

EXPERIENCE

R&D ENGINEER/PH.D STUDENT at *Inria, Anatoscope (France)*. **2019–pres.**

- ◇ Industrial and research projects in medical imaging and anatomical simulation.
- ◇ Digital twins, Computer graphics, computer vision, deep-learning, anatomical simulation.

SOFTWARE ENGINEER at *Inria (France)*.

2016–2018

- ◇ Development of fast and easy-to-use software applications for molecular phylogeny. See [Treerecs](#) and [Seaview 5](#).
- ◇ C++/Python programming, software design, molecular phylogeny.
- + **TEACHING** at *INSALyon* C++ programming.

RESEARCH INTERN IN COMPUTER SCIENCE at *Inria (France)*.

2016

- ◇ Creation of artificial life models for study of evolution. See [Aevol](#).
- ◇ Mathematical modeling, biostatistics, molecular biology, artificial life.

INTERN IN STATISTICS at *Soladis (France)*.

2015

- ◇ Statistical analysis, development of an R package, writing of 180-page manual on statistical programming with R.
- ◇ R programming, statistics, teaching.

COMPUT. BIOLOGIST, IGEM (competition), at *INSA Lyon (France)*.

2014

- ◇ Creation of a genetically modified bacteria for the treatment of polluted water. Student project for the international Biology competition IGEM (Boston, USA). Two awards.. 2 prix remportés. See our project [Curly'On](#)
- ◇ Statistics, modeling, molecular biology, simulation.

EDUCATION

PH.D in Computer Science. *Université Grenoble-Alpes*.

2020-2023

- ◇ Thesis title: *Learning scoliosis patterns using anatomical models and motion capture*.
- ◇ Computer vision and graphics, deep-learning, biomechanics, motion capture, medical imaging.

ENGINEER in Bio-Informatics and Modeling. *INSA Lyon*.

2013–2016

- ◇ Mathematical modeling, computer science, statistics, biology.

BACHELOR in Bio-Informatics. *Université de Lyon*.

2010–2013

- ◇ Modeling, computer science, statistics, biology, genomics.

AWARDS

BEST POSTER IN ARTIFICIAL INTELLIGENCE APPLIED IN BIOMEDICAL IMAGING. *IABM 2023, Colloque National en Intelligence Artificielle Appliquée à l'Imagerie Biomédicale.*

GOLD MEDAL and BEST COMPOSITE PART. *IGEM 2014, International Genetically Engineered Machine competition.*

PUBLICATIONS AND COMMUNICATIONS

See my [Google scholar](#) page or [HAL](#) profile.

HOBBIES

GRAPHICS: infographics, illustration, digital drawing and painting.

SCIENCE COMMUNICATION: member of *Démesures 2017-2019* (France), animator, speaker in *Geek Touch 2018, Fête de la Science 2017, 2018, ...*

PHOTOGRAPHY: nature and wildlife photography.

PROGRAMMING: various projects.