



Basile Rommes



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Education

MSc. Bioinformatics | University of Copenhagen, Denmark | 2017-2019

BSc. Bioinformatics | Universität des Saarlandes, Germany | 2012-2016

Skills

Computational interests : Image Analysis, Computer Vision, Structural Bioinformatics

Programming : Python, Unix/Bash, C++

Others: Keras, Tensorflow, Latex, PLINK, SAMtools, Python Bokeh, snakemake

Hobbies

Rock climbing
Long Distance Running
Sustainable Living
Hiking
Philosophy
Music and Cinema

Work

SEP '20 - now **Research and Development Specialist at Luxembourg Centre for Systems Biomedicine** 11 months

Data Management, Data harmonisation, Platform building within the Biomap and CON-VINCE Projects

JUN - AUG '20 **Programmer at BioLib** 2,5 months

App creation for the BioLib Webplatform (<https://biolib.com>), compiling C-projects to WASM Front-End development of the Open-Protein Webpage

FEB-SEP '19 **MSc. THESIS - Mean Field Networks for Retinal Blood Vessel Segmentation** 6 months

Investigated the suitability of Mean Field Networks (a Bayesian machine learning model) for pixel-level classification of retina images into vessel and background classes.

JAN - MAY '19 **Studentjob - Redaction of scientific paper** part-time, 5 month

"Deep learning and data augmentation using a coarse-grained force field reveal dark matter in the universe of protein structures" Redaction of writing to make this Master thesis publishable as a paper.

Relevant projects

MAR 2019 **ValHacks 2019 - Hackathon** 24 hours

Hackathon where we teamed up to tackle a machine learning challenge on Kaggle (kaggle.com)

DEC '18-JAN '19 **GROUP PROJECT: VISUALIZATION OF HIV PROTEINS** 2 months

Design of website showcasing information of the HIV protein taken from the Protein Databank (PDB), <https://chenbascara1.github.io/>

FEB - APR '18 **BIOINFORMATICS PROJECT** 2,5 months

Implementation of a Bayesian inference model to tackle the protein superpositioning problem. (see section Publications)

NOV 2017 **LEOPHARMA HACKATHON** 2 days

Teamed up with like-minded peers to compete in Leopharma's challenge to find new approaches to treating atopic eczema using artificial intelligence.

APR-OCT '16 **BSc. THESIS - GENOME-WIDE ASSOCIATION STUDIES ON SIMULATED BACTERIAL GENOMES** 6 months

Benchmarking of automated GWAS tool for identification of SNP-phenotype associations in bacterial genomes.

Publications

2019 **A Probabilistic Programming Approach to Protein Structure Superposition** Journal: Institute of Electrical and Electronic Engineers IEEE <https://ieeexplore.ieee.org/document/8791469>

Languages

- English - Full professional proficiency
- German - Native or bilingual proficiency
- French - Professional working proficiency
- Luxembourgish - Native proficiency
- Danish - Very elementary proficiency (Module 2 certification)