

Theo Killian

Rue Longue 138, 1150 Brussels, Belgium

theo.killian@gmail.com | +32492771747

github: <https://github.com/tfkillian>

linkedin: <https://www.linkedin.com/in/theo-killian/>



Objective

Skilled professional bioinformatic analyst with deep and diverse experience in omics data visualization, bioinformatic infrastructure, web application development, and hands-on knowledge of analytical instrumentation.

Qualifications Summary

- 4+ years of experience performing bioinformatic analyses of omic data
- 5+ years of proficiency in Python, R and bash scripting
- 10+ years of experience with UNIX-like operating systems (Ubuntu, Kubuntu, Red Hat)
- 4+ years experience implementing prediction and classification models, including: linear and logistic regression, Bayesian models, decision trees, SVMs and neural networks
- 4+ years experience with data visualization and data manipulation packages such as pandas, numpy, scikit-learn, matplotlib, ggplot2, dplyr, plotly, tidyverse, Shiny, as well as bioinformatic packages in the Bioconductor ecosystem such as DESeq2, limma, Seurat, SingleCellExperiment, clusterProfiler, FGSEA and ExperimentHub
- 3+ years experience working with NGS pipelines and NGS data
- 2+ years experience working with Docker containerization and AWS Cloud architecture
- 6+ years of professional experience in analytical and instrumental laboratory settings, operating analytical and quantitative instrumentation such as FT-IR, UV-Vis and GC-MS

Education

Masters of Science: Bioinformatics

Graduated Jan 2019

Katholieke Universiteit Leuven, Leuven, Belgium

Master's Thesis: “*Computational design of symmetric proteins for bionanotechnology*”

- **Course Experience:** Bioinformatics Computing, Database Management, Linear Algebra, Basic Programming, Object Oriented Programming, Dynamical Systems, Biomolecular Interactions, Biomolecular Modeling, Genomics, Proteomics and RNA Sequence Analysis, Model Organisms, Evolutionary Genetics, Comparative and Quantitative Genetics, Bayesian Statistics, Machine Learning, Multivariate Statistics, Support Vector Machines and Artificial Neural Networks and Deep Learning

Bachelor of Science: Biochemistry

Graduated Jun 2010

Southern Oregon University, Ashland, Oregon, USA

Undergraduate Thesis: *Characterizing Protein-Heavy Metal Complexes via UV-Vis and FT-IR*

- **Course Experience:** General Chemistry, General Biology, General Physics, Calculus, Organic Chemistry, Spectroscopy, Analytical Chemistry, Instrumental Analysis, Physical Chemistry, Biochemistry, Differential Equations, Genetics and Molecular Biology

Publications

- Halbout M, et al. (2021) "Modulating protein production from nonsense-mediated decay targets by SUZ-domain containing proteins." *Nucleic Acid Research*
- Lin Y, et al. (2021) "Whole-life bone percentage trajectory and longevity in rats: Role of insulin." *Aging*
- Mylemans B, et al (2021) "Crystal structures of Scone, pseudo-symmetric folding of a symmetric designer protein" *Acta Crystallographica Structural Biology*
- Pollet H, et al. (2020) "Aberrant Membrane Composition and Biophysical Properties Impair Erythrocyte Morphology and Functionality in Elliptocytosis." *Biomolecules*
- Gatto L, Killian T (2019). "depmap: Cancer Dependency Map Data Package." *F1000 Research*

Career Experience

Bioinformatician, CCB-VIB, Leuven, Belgium

Aug 2020 – current

- Bioinformatic analysis of omics data and building bioinformatic infrastructure

Bioinformatician, De Duve Institute, UC Louvain, Brussels, Belgium

Feb 2019 – Aug 2020

- Bioinformatic analysis of omics data and building bioinformatic infrastructure

Laboratory Analyst Fremont Analytical Inc., Seattle, WA, USA

Apr 2014 – Sep 2016

- Performed analysis of organic analytes via GC-MS and solid phase extraction

Quality Control Chemist, PureBulk, Inc., Roseburg, OR, USA

Dec 2011 – Mar 2014

- Performed QA/QC testing of products via FT-IR, GC-MS and HPLC

Lab Technician, Integrated Medical Research, Ashland, OR, USA

Sep 2010 – Apr 2011

- Recruited individuals and collected research trial data for clinical pharmaceutical studies

References

- Dr. Diether Lambrechts, Professor of Medicine, KU Leuven, Leuven, Belgium
Phone: +3216373209 - Email: diether.lambrechts@kuleuven.be - Relationship: Manager
- Dr. Laurent Gatto, Professor of Bioinformatics, UC Louvain, Brussels, Belgium
Phone: +3227647415 - Email: laurent.gatto@uclouvain.be - Relationship: Former Manager
- Dr. Arnout Voet, Assistant Professor Molecular Modeling, KU Leuven, Leuven, Belgium
Phone: +3216324496 - Email: arnout.voet@kuleuven.be - Relationship: Thesis Adviser
- Dr. Enrico Pozzo, Stem Cell and Developmental Biology, KU Leuven, Leuven, Belgium
Phone: +3216373973 - Email: enrico.pozzo@kuleuven.be - Relationship: Collaborator