

# Theo Killian

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## Objective

Skilled professional analyst seeking to maximally utilize experience in data visualization, bioinformatic programming, web applications and analytical instrumentation.

## Qualifications Summary

- 2+ years of experience performing bioinformatic analyses of omic data
- 4+ years of proficiency in Python, R and bash
- 4+ years of experience in statistical data analysis and data visualization techniques
- 10+ years of experience with UNIX-like operating systems (Ubuntu, Red Hat, Kubuntu)
- 6+ years of professional experience in analytical and instrumental laboratory settings
- 4+ years of work experience operating analytical and quantitative instrumentation including: FT-IR and UV-Vis Spectrophotometers and GC-MS
- 2+ years experience implementing automated NGS/omics pipelines with Snakemake
- 1+ year working with Docker containerization and AWS Cloud architecture
- 3+ years experience implementing prediction and classification machine learning models, including: linear regression, Bayesian models, neural networks, decision trees, SVM, etc.
- 3+ years experience with data visualization and data cleaning packages such as pandas, numpy, scikit-learn, ggplot2, Shiny, dplyr, plotly, quanteda, tidyverse, Bioconductor, etc.

## Education

### Bachelor of Science: Biochemistry

Graduated Jun 2010

Southern Oregon University, Ashland, Oregon, USA

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

- Course Experience: General Chemistry w/lab, General Biology w/lab, General Physics w/lab, Organic Chemistry w/lab, Organic Spectroscopy w/lab, Calculus I-III, Analytical Chemistry, Instrumental Analysis w/lab, Computer Applications in Chemistry, Physical Chemistry w/lab, Biochemistry w/lab, Genetics w/lab, Molecular Biology w/lab

### Masters of Science: Bioinformatics

Graduated Jan 2019

Katholieke Universiteit Leuven, Leuven, Belgium

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

- Course Experience: Database Management, Bioinformatics Computing, 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

## Career Experience

*Bioinformatician*, De Duve Institute, UC Louvain, Brussels, Belgium      Feb 2019 – current

- Perform bioinformatic data analysis of biological data
- Building web apps to visualize results of bioinformatic data analysis
- Develop open source data analysis software, such as Bioconductor packages

*Laboratory Analyst* Fremont Analytical Inc., Seattle, WA, USA      Apr 2014 – Sep 2016

- Solid and liquid phase extraction of organic analytes from various media
- Analytical analysis via GC-MS and solid phase extraction
- laboratory sample management, sample archiving via EPA methods

*Quality Control Chemist*, PureBulk, Inc., Roseburg, OR, USA      Dec 2011 – Mar 2014

- Performed QA/QC, testing, approval and rejection of inventory
- Ensured products complied with specifications via FT-IR, GC-MS, HPLC
- Technical writer, authored SOPs for Safety, Quality Control and Production

*Lab Technician*, Integrated Medical Research, Ashland, OR, USA      Sep 2010 – Apr 2011

- Collected and logged research trial data in LIMS for clinical pharmaceutical studies
- Recruited and enrolled individuals in ongoing pharmaceutical studies
- Dispensed study medication, processed biohazardous medical research samples

*Academic Tutor*, Southern Oregon University, Ashland, OR, USA      Sep 2007 – Jul 2010

- Tutored organic and general chemistry, biology, physics, astronomy, and philosophy

## References

- Dr. Laurent Gatto, Professor of Bioinformatics, UC Louvain, Brussels, Belgium  
Phone: +3227647415 - Email: laurent.gatto@uclouvain.be - Relationship: 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  
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