Alexander Larsen

5443 Serviceberry, Centreville VA, 20120

PHONE (920) 246-8971

E-MAIL Alarsen525@gmail.com

LINKEDIN www.linkedin.com/in/a-w-larsen

TECHNICAL SKILLS

Multi-purpose Language

- Python
- R
- C++
- JavaScript
- Bash scripting

Sublanguages

- SQL
- MongoDB
- CSS/HTML

System / Support

- Git
- AWS CLI
- REST API
- Docker
- GIMP img editor

SUMMARY

Statistical analyst of Next Generation Sequencing (NGS) data as it relates to clinical applications. Excels in both fast-paced environments with urgent clinical results and methodical high dimensional data analysis. Automates multilanguage bioinformatic software and tool development with an emphasis on python. Works with business partners and other researchers coordinating projects and public speaking. A self-directed learner, highly collaborative, and excellent at working autonomously.

ACHIEVEMENTS

- Designed automated COVID-19 report end to end software.
- Developed metagenomic analysis library that automatically pulls, graphs, and models metadata.
- Designed automated multi-process Human Microbiome Project Whole Genome Sequencing (WGS) metagenomic pipeline
- Created rapid primer design tools for over 10,000 different microscopic species.
- Presented on bioinformatics clinical value to congress representative and at other local events.
- Published scientific article with first authorship.

EXPERIENCE

Clinical Bioinformatician II

Aperiomics Inc.

June 2018 - Current

Sterling, VA

- Pipeline software development and module creation. Python, SQL, command-line/bash, C++, HTML, CSS, Javascript and R • Quality control and standards development.
- NGS protocols optimization and data analysis. Statistical modeling, Bayesian, Regression, PCoA, diversity. analysis.
- Public speaking, clinician consults, and patient customer service.
- Publication writing, SOP writing, and publication grade image editing.

Undergraduate Researcher

University of Wisconsin Madison

Apr 2013 – May 2016

Madison, WI

- Characterizing circadian rhythm genes and their temporal effect on long term memory formation in drosophila. Particular effort towards the quality control of data and samples.
- Characterizing zebrafish embryonic development, crayfish nerve reading frequencies, and rat hippocampal electrical activity.

EDUCATION / CERTIFICATIONS

Bioinformatics Micromasters Certificate

UMGC - edX

Mar 2019 – Jan 2020

Adelphi, MD

Proteins and DNA: Alignment, Statistical Analysis, and Structure. BIF001x - BIF003x

BioinformaticsAudited – UW Madison / MIT Open Courseware

University of Wisconsin Madison

June 2017 - Apr 2018

De Pere, WI

- · Graduate studies following UW Madison outlines for a master's in bioinformatics.
- Statistics, bioinformatic algorithms I/II, general algorithms / data structures, artificial intelligence.

B.S. Neurobiology

Sept 2012 - May 2016

Madison, WI

 Graduated from a selective honors biology program which facilitated group directed research, scientific writing, and analysis. – UW Madison Biocore program.