Alexander Larsen

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PROJECTS https://github.com/Zinthrow

OBJECTIVE

I am a programmer with an extensive background in biology looking for a full time position in bioinformatics.

SOFTWARE

Python   **Proficient**
- Sequence assembly program using next generation sequencing reads (NGS).
- Clustering phylogenetic trees and genes and computing rate of mutation and pairwise sequence score.
- Identifying coding, non-coding and regulatory regions, comparing them to other known genes.
- Familiar with machine learning in neural networks, constraint problems, and Bayesian networks.

R programming   **Proficient**
- Basic experience through classes.

Linux   **Proficient**
- Basic terminal use, file editing, comfortable with using as primary OS.

Excel   **Proficient**
- Pivot tables, conditional formatting, charting.

Bash/Vim/Regex   **Introductory**
- Made basic scripts in Bash and python with Vim. Used regex for classes and personal use.

EXPERIENCE

Undergraduate Researcher   **Apr 2013 – May 2016**
University of Wisconsin Madison   *Madison, WI*
- Assisted research lab 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.
- Utilized histograms and frequency distributions to show DNA, RNA, and protein expression results.
- Additional capstone projects characterizing zebrafish embryonic development, crayfish nerve reading frequencies, and rat hippocampal electrical activity. Cross referencing BLAST and similar tools to reinforce findings.

Nanny and childcare   **Nov 2015 – Aug 2016**
Self Employment   *Madison, WI*

Laborer   **May 2015 – Aug 2015**
Bruce Company Landscaping   *Verona, WI*

Assistant Piano Teacher   **Sept 2010 – Mar 2011**
Larsen Piano Studio   *De Pere, WI*

EDUCATION

B.S. Neurobiology   **Sept 2012 – May 2016**
University of Wisconsin Madison   *Madison, WI*
- Graduated from a selective honors biology program which facilitated group directed research, scientific writing, and analysis.   – UW Madison Biocore program.

Bioinformatics   **June 2017 – Apr 2018**
Audited – UW Madison/MIT   *De Pere, WI*
- Graduate studies following UW Madison outlines for a certificate in bioinformatics.
- Statistics, bioinformatics I/II, algorithms/data structures, artificial intelligence. See github above for a portion of the projects.

OTHER PROJECTS

Foundations of Data Science: Computational Thinking Certificate   **Mar 2018 – May 2018**
BerkleyX - edX   *De Pere, WI*
- Certification to verify data science skills. Python statistical inference and basic artificial intelligence.

Budgeting   **Aug 2016 – June 2017**
Travel   *US, Canada, Mexico*
- Meticulous record keeping graphing expenditures to optimize costs based on time, geographical area, and food.

Private Aviation License   **Oct 2010 – Sept 2012**
Tailwind at Austin Straubel International Airport   *Green Bay, WI*