

Alexander Larsen

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WEBSITE <https://zinthrow.github.io/>

OBJECTIVE

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

SOFTWARE

Python	Proficient	R programming	Proficient
<ul style="list-style-type: none">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.		<ul style="list-style-type: none">Basic experience through classes.	
		Linux	Proficient
		<ul style="list-style-type: none">Basic terminal use, file editing, comfortable with using as primary OS.	
		Html / CSS	Introductory
		<ul style="list-style-type: none">Website design and formatting.	
		Bash / Vim / Regex	Introductory
		<ul style="list-style-type: none">Constructed basic scripts in Bash and python with Vim. Used regex for classes and personal use.	

EXPERIENCE

Undergraduate Researcher <i>University of Wisconsin Madison</i>	Apr 2013 – May 2016 <i>Madison, WI</i>
<ul style="list-style-type: none">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 <i>Self Employment</i>	Nov 2015 – Aug 2016 <i>Madison, WI</i>
Laborer <i>Bruce Company Landscaping</i>	May 2015 – Aug 2015 <i>Verona, WI</i>
Assistant Piano Teacher <i>Larsen Piano Studio</i>	Sept 2010 – Mar 2011 <i>De Pere, WI</i>

EDUCATION

B.S. Neurobiology <i>University of Wisconsin Madison</i>	Sept 2012 – May 2016 <i>Madison, WI</i>
<ul style="list-style-type: none">Graduated from a selective honors biology program which facilitated group directed research, scientific writing, and analysis. – UW Madison Biocore program.	
Bioinformatics <i>Audited – UW Madison/MIT</i>	June 2017 – Apr 2018 <i>De Pere, WI</i>
<ul style="list-style-type: none">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 <i>BerkleyX - edX</i>	Mar 2018 – May 2018 <i>De Pere, WI</i>
<ul style="list-style-type: none">Certification to verify data science skills. Python statistical inference and basic artificial intelligence.	
Budgeting <i>Travel</i>	Aug 2016 – June 2017 <i>US, Canada, Mexico</i>
<ul style="list-style-type: none">Meticulous record keeping graphing expenditures to optimize costs based on time, geographical area, and food.	
Private Aviation License <i>Tailwind at Austin Straubel International Airport</i>	Oct 2010 – Sept 2012 <i>Green Bay, WI</i>