

# **Nathan Frederick Bumpus**

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## **Summary of Qualifications**

- Completed data analysis projects in Python and R
- Built a pipeline on High Performance Computing Cluster at the University of Maine
- Designed a personal finance application with SQL and PHP
- Obtained seven years of laboratory experience
- Graduated summa cum laude with a 3.9 GPA and awarded Celeste Cote Memorial Scholarship

## **Relevant Knowledge and Skills**

### **Programming and Data Analysis**

- Used Python 2 to write a program to encode text files into DNA sequences and then convert the DNA sequences back to readable text
- Performed data analysis on 34 years of United States homicide data using Python 3 with Pandas, Numpy, Matplotlib and Scipy
- Built a pipeline for the use of Trinity software in developing “de novo” transcriptome assemblies on the high performance computing cluster at the University of Maine
- Wrote a personal budget application by designing a relational database with SQL and writing PHP driven websites.
- Worked collaboratively on large Daphnia Pulex RNA seq data set using R with edgeR, DESeq2, Pathview and ggplot at Mount Desert Island Biological Laboratory

### **Laboratory**

- Performed RNA extraction and built cDNA libraries using Daphnia Pulex samples at Mount Desert Island Biological Laboratory
- Obtained seven years of experience operating high throughput analyzers as a Medical Laboratory Technologist in hospital and reference laboratories
- Obtained seven years of experience performing standard laboratory procedures including pipetting, centrifugation, making dilutions and aseptic technique as a Medical Laboratory Technologist

## **Education**

- Professional Science Masters in Bioinformatics, University of Maine Orono, May 2019
- Bachelor of Arts in Biology, University of Maine Augusta, May 2011

- Associates of Science in Medical Laboratory Technology, University of Maine Augusta, May 2010

### **Employment History**

- Medical Laboratory Technologist at Maine General Medical Center in Augusta, Maine March 2016 – May 2018
- Medical Laboratory Technologist at NorDx/MaineHealth in Scarborough, Maine June 2012- March 2016
- Medical Laboratory Technologist at Inland Hospital in Waterville, Maine June 2011- July 2012