

EDUCATION

- **Northern Illinois University** DeKalb, IL
Bachelor of Science in Computer Science and Mathematics; GPA: 3.5 Aug. 2014 – May 2018

EXPERIENCE

- **Yin Lab at Northern Illinois University** DeKalb, IL
Undergraduate Research Assistant May 2017 - Present
 - **dbCAN2**: dbCAN2 is a web-based bioinformatics tool that allows users to upload a genome sequence and receive cazyme predictions on that genome. Optionally, dbCAN2 can automatically predict transcription and transportation factors and use these predictions in CGCFinder to predict cazyme gene clusters. For this project I was given the lead role and thus was the head of a team of computer scientists and biologists. The web-portal is written in PHP/HTML and JavaScript with the actual computation being driven by Python scripts.
 - **DBHGT**: DBHGT is the DataBase for Horizontal Gene Transfer. While this project was conceptualized and started as my predecessor's thesis, I was responsible for carrying the project to its full potential. This included further computational work, a database restructure and a complete rebuild of the web portal
 - **GCPU**: GCPU is the Gene Cluster Plotting Utility. GCPU is web-based utility that runs via a Python script and is used to visualize gene clusters. This utility was created to work in tandem with CGCFinder, but can be used independently via its own web site.
 - **CGCFinder**: CGCFinder is the Cazyme Gene Cluster Finder. This tool is a python script that accepts an annotated genome and finds clusters of cazymes. This tool has existed in two other forms, but I am responsible for its most recent optimization. This most recent version can be found in dbCAN2 and as a standalone script.
- **Northern Illinois University Graduate School** DeKalb, IL
Student Worker Aug 2014 - May 2017
 - **Reports**: Created various reports for the Dean of the Graduate School using the Microsoft Office Suite
 - **Python**: Used Python to create simple scripts to automate routine, repetitive tasks. These tasks usually involved multiple Excel spreadsheets and thousands of records that would otherwise be handled by hand.
 - **Records Management**: Archived records and entered relevant data into the records management system

PROGRAMMING SKILLS

- **Languages (proficient)**: Python, C++, HTML/PHP
- **Languages (familiar)**: MySQL, Java, JavaScript, Ruby, Go, C#
- **Programs/Softwares**: Unix, Windows, Android, Unity

EXTRACURRICULAR

- **TEDx Northern Illinois University** DeKalb, IL
Webmaster, Logistics Coordinator Aug. 2014 - May 2017
 - **Logistics Coordinator**: As the Logistics Coordinator, I was in charge of obtaining and setting up all the physical things needed for our event (i.e. venue, food, local transit, etc.). I lead a small team of peers over the course of the year to secure the various items we needed, and then a larger group of peers and volunteers on the day of the event
 - **Webmaster**: As webmaster, my responsibility was that of anything technology. I was the maintainer of the website, helped run the multimedia at meetings and smaller events, and the A/V lead on the day of the event
- **LIFE Missions** Sycamore, IL
Senior Member Aug. 2011 - Present
 - **Mission/Service Trips**: Participated in yearly mission trips. Belize (2016), Jamaica (2015), Montana (2014), Florida (2013)
 - **Bible Study**: Participated in weekly bible studies
 - **Advising**: Advised the Youth Pastor on various topics, including the mission trips and bible studies. Also, mentored younger members.