

Jacob Elnaggar

Professional Experience

BAYLOR UNIVERSITY, WACO, TX

Bioinformatics Capstone Project,
August 2017 – December 2017

- Worked with Erich Baker, Phd, on his bioinformatics website, Geneweaver.org
 - Created an algorithm for users to compare multiple gene interaction networks, allowing biologists to discover underlying patterns in a specific disease
- MD ANDERSON CANCER CENTER, HOUSTON, TX
Independent Researcher in
Bioinformatics/Computational Biology Department,
June 2017 – August 2017
- Internship at the number one cancer research center in the world
 - Implemented a computational model that analyzes cancer biopsies and nominates treatment therapies
 - Used my combined knowledge of computer science and cancer biology
 - Advanced network modeling and machine learning

BAYLOR SCOTT & WHITE MEDICAL CENTER, WACO, TX Consultant, January 2017 – May 2017

- Worked in a team to create a database for the hospital
 - Designed to store procedure information for a patient before, during, and after each operation
 - User-friendly website as the front end
 - Created this using MySQL, PhP, Java Script, and HTML
- LSU HSC BIOINFORMATICS, NEW ORLEANS, LA
Bioinformatician and Data Analyst, June 2016 – August 2016
- Research internship at LSU Health Science Center
 - Worked in the Bioinformatics and Genomics program
 - Analyzed large sets of patient data for genomic patterns in breast cancer
 - Curated a manuscript from the findings that is being published

SOFTWARE ENGINEERING, BAYOR UNIVERSITY, WACO, TX Created an RFID system for an ENT clinic, August 2016 – December 2016

- Worked in a team to create a system that utilizes RFID readers in a Head and Neck Surgery clinic
- Part of a Scrum Team
- Created this system using Java and multithreading

LSU HSC, NEW ORLEANS, LA

Researcher in Physiology Department, June 2015 – August 2015

- Research internship at LSU Health Science Center in the Physiology department
- Mapped protein expression in Rhesus Macaque prefrontal cortex to model the effect of combined stimuli using network modeling

Education

BAYLOR UNIVERSITY, WACO, TX

2014-2018

BS in Bioinformatics 3.9 GPA (Dean's List)

Relevant course work

- Datamining • Software Engineering
 - Biochemistry
- Machine Learning
 - Data Structures
 - Algorithms
- Database Design & Application
- Organic Chemistry Skills and Abilities Technology
 - Python • C++
 - Java
 - R
 - SQL
- Java Script • HTML
 - Assembly
 - CSS • C
 - PHP • Bash
- Visual Studio, Vim, Eclipse, RStudio, Git, IntelliJ, PyCharm
- Windows OS, Mac OS, Linux OS (Ubuntu & Red Hat)

Extracurricular Organizations

- Association of Bioinformatics and Biotechnology Vice President. ABB is an academic club designed for bioinformatics students and students who are interested in the fields of bioinformatics and biotechnology.
- Baylor Medical Ethics Discussion Society Service Officer. I lead volunteer events in the Waco area, including Mission Waco, and I help our members get involved with service.

Computer Science/Bioinformatics tutor/mentor
I tutor and mentor freshman Bioinformatics students during their first year at Baylor University.