Shaima Hussaini

518-368-944 | shaima.hussaini@gmail.com | linkedin.com/in/shaima-hussaini | github.com/shaima-h

United States Citizen | Albany, NY

EDUCATION

University at Albany Aug. 2021 – May 2024
B.S. in Computer Science, Minor in Statistics *Albany, NY*
GPA: 4.0

TECHNICAL SKILLS

Proficient: Java, Python, C, Bash
Familiar: HTML, CSS, JavaScript, R
Tools: Git, Linux, Visual Studio Code, Eclipse, PyCharm, Jupyter Notebook, RStudio
Libraries: NumPy, Scikit-Learn, Matplotlib, Pandas, Apache POI

EXPERIENCE

Fellow in RNA Institute's Bioinformatics Program June 2022 – Aug. 2022
RNA Institute at the University at Albany *Albany, NY*
- Analyzed RNA sequences with chemical reactivity data and developed a pipeline to accurately model RNA secondary structures.
- Analyzed large data sets of biological data and gene sequences using R to perform differential and alternative splicing gene expression analysis.
- Presented at the RNA Institute's Summer Symposium and won Best Poster Presentation Award.

Undergraduate Research Assistant May 2022 – Aug. 2022
Chen Lab – RNA Institute at the University at Albany *Albany, NY*
- Developed a Java program with a Swing GUI to analyze mass spectrometry data for RNA modifications.
- Worked with other labs to customize the program to fit their research needs.

Volunteer Tutor and Publicity Manager Jan. 2018 – June 2021
Academic Resource Center – Niskayuna High School *Schenectady, NY*
- Publicized tutoring center to students and teachers, wrote announcements for PA system, organized study groups and drop-in tutoring, and recruited new tutors.
- Tutored peers in multiple math and science subjects, and acted as an alternative to meeting with a teacher.

PROJECTS

MassSpecAnalysis | *Java, Java Swing GUI, Apache POI* May 2022 – Aug. 2022
- Developed a Java program that compares data generated from mass spectrometry experiments to the lab's database with various parameters set by the user from a GUI.
- Used Apache POI to export analysis as an Excel file.
- Developed a feature to edit the database directly from the GUI.

Book Recommendations | *Python, NumPy, Matplotlib, Scikit-Learn, Pandas* Aug. 2022 – Present
- Built a system that makes book recommendations to the user based on their liked books using data scraped from Goodreads.
- Built a search engine to search the data set for books using TF-IDF and cosine similarity.

Interpreter | *Java* Sep. 2022 – Present
- Built an interpreter for Shank, a language developed by my professor.
- Developed a lexer to generate tokens using a state machine.
- Developed a parser that processes the tokens and returns an abstract syntax tree.

AWARDS AND ACCOMPLISHMENTS

2021–2022 Dean's List of Distinguished Students
2021 University at Albany Capital District Leadership Award
2021 NYS Merit Scholarship for Academic Excellence
2021 Burger King McLamore Foundation Scholarship
2021 Schenectady Sandra Orminski Memorial Scholarship