

# Snigdha Ghosh Dastidar

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## EDUCATION

**University of Illinois at Chicago (UIC), Chicago, IL**

May 2023

*Bachelor of Science in Computer Science, Minor in Mathematics*

Cumulative GPA: 3.88/4.00

Dean's List

**Relevant Coursework:** Principles of Concurrent Programming, Data Science, Object-Oriented Languages, Algorithms, System Programming (C++), Software Design, Languages and Automata, Unix Terminal, Statistical Methods.

## SKILLS

**Programming:** C++/C, Java, Python, F#, MATLAB, R/RStudio, C#, SQL, JavaScript, CSS, HTML, Go, Processing.

**Technical Skills:** x-86 assembly, Java Reflection, Rest APIs, Pandas, Matplotlib, LaTeX, JUnit, XML, Docker, agile, git.

## EXPERIENCES

**OFS HealthCare, UIC Innovation Center**

May 2022 - May 2022

*Computer Science Intern*

- Designed and developed a digital card sort exercise of the analog version to identify individual social determinants of health that measures community level improvement.
- Implemented 2 software prototypes using JavaFX, Adobe-XD, and SQL connection libraries in Java.
- Gained knowledge about data analysis, machine learning and database design.

**UIC, CS Department**

August 2021 - Present

*Undergraduate Teaching Assistant*

Course: CS251- Data Structures

- Hold office hours to clarify student's queries regarding Valgrind, time complexity analysis, testing and debugging.
- Provide students with constructive feedback after interviewing them for oral exams and conduct lab sessions.

**UIC, College of Engineering**

August 2021 – May 2022

*Engineering Success Program Mentor*

- Lead workshops of up to 32 students and brainstorm sessions to encourage self-direction among students.
- Grade assignments, reply to student's questions through email, and hold one-on-one office hours.

## PROJECTS

**World Freedom Analysis Report** (Python, Jupyter Notebook)

May 2022

- Performed exploratory data analysis on various factors that affect the freedom and development status of a country
- Trained and compared different classification models to predict which countries are leading to "not-free" status.
- Built machine learning model using numpy, sklearn and seaborn libraries in python.

**Multithreaded Management Utility** (Java)

April 2022

- Asynchronous concurrent program to keep a track of the diagnostic test sampling and distribution between a lab and multiple testing sites.
- Implemented universal lock free construction, and sustained thread-safety and linearizability.

**Interpreter** (Java, Python)

December 2021

- Developed a dynamic scoped interpreter implementing first class functions, loop, return and various statements.
- Maintained inheritance, reflection, and switch to strings to evaluate expression features.

**15-Puzzle Game** (Java)

April 2021

- JavaFX program that presents a unique solvable puzzle for every new game and animates move by move solution.
- Incorporated A\* algorithm for one of the two AI heuristics by threading using Executors class.

**File Compression** (C++)

November 2020

- Collaborated with a partner to build a file compression algorithm to compress or decompress any kind of large file.
- Applied Huffman algorithm for encoding and decoding using a custom priority queue, binary trees, and a provided custom HashMap class.