

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: 3.90/4.00

Dean's List

Relevant Coursework: Principles of Concurrent Programming, Data Science, Natural Language Processing, Object-Oriented Languages, Algorithms, System Programming (C++), Languages and Automata, Statistical Methods.

SKILLS

Languages: C++/C, Java, Python, F#, Dart, MATLAB, R/RStudio, C#, SQL, JavaScript, Go, Processing.

Technical Skills: Flutter, x-86 assembly, Java Reflection, Rest APIs, LaTeX, JUnit, Maven, XML, Docker, agile, git.

EXPERIENCES

Caterpillar Lab, UIC Innovation Center

June 2022 – Present

Research Aide

- Illustrate the flow of the data chain from the machine to end applications by interviewing company employees and investigating the areas of data breakdowns.
- Construct an automated diagnostic system to troubleshoot the breakdowns by analyzing the company's inner workings, cloud database, and network architecture.
- Work in a multi-disciplinary team using agile scrum methodologies, and apply engineering and analytics principles.

UIC, CS Department

August 2021 – Present

Undergraduate Teaching Assistant

Course: Software Design (Present) | Programming Language Design and Implementation | Data Structures

- Hold office hours to clarify student's queries regarding time complexity, testing, debugging, threading, and exceptions.
- Conduct lab sessions and provide constructive feedback after interviewing students for oral exams.

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 human-centered design methods.

PROJECTS

Chatbot System (Python)

November 2022

- Stylistic and sentiment analysis chatbot system based on rules governed by internal dialogue management logic.
- Incorporated Multiplayer Perceptron, SVM, and Logistic Regression models for predicting user sentiment.

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 heading 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.
- Applied universal lock-free construction, and sustained thread-safety and linearizability.

Interpreter (Java, Python)

December 2021

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

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.