# Raiyan Reza

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**EDUCATION** 

New York University, NYU Shanghai, Shanghai, China

Spring 2023

Bachelor of Science, Computer Science, GPA: 3.3

Relevant Coursework: Software Engineering, Functional Programming, Information Visualization

TECHNICAL SKILLS

**Coding Languages:** Python, C++, Haskell **Operating Systems:** Windows, Linux

Other Tools: D3 Library Javascript, Django, LateX, Pandas, Numpy, Shyft

EXPERIENCE

# Personal IT Assistant (Python, Shyft, Pandas): Client Information Confidential

12th Dec, 2023-25th Dec, 2023

- Devised a solution for collecting and compiling hydrological model and observation data from Shyft TimeSeries to a Panda framework.
- Programmed the interface for running some statistical analysis on the gathered data, notably, Nash-Sutcliffe measures between observation data and hydrological model data.

### Individualized Tutoring in Introductory Programming (Python, Latex): Dhaka, Bangladesh 6th Jun, 2022- 12th Aug, 2022

- Provided a highly individualized curriculum that assisted the student getting the highest grade in the class in their programming course.
- Carefully curated and wrote questions in Latex with clear emphasis on algorithmic thinking for regular classwork, quizzes, and tests to create an active learning environment.
- Updated my student's guardians with detailed progress report stating instruction hours, student strengths and weaknesses, and other necessary feedback.

**PROJECTS** 

#### **Prototyping A Toy Context Free Parser for Chinese Grammar (Python, Haskell)**

Fall 2022

- Communicated and collaborated with my teammate and thesis advisor, Professor Paul-André Melliès, across different time zones.
- Wrote and compiled the detailed reports and literature reviews.
- Built a Python Prototype of an Earley Parser.

# Qalb+: A HealthCare Web Application Prototype (Django)

Fall 2022

- Collaborated with my team on brainstorming ideas for the intended project.
- Established the project's name, Qalb+. The word Qalb is a transliteration for the Arabic word for heart. The name is well suited for an web application aiming to bring together doctors and patients in the Gulf Arab country United Arab Emirates.
- Wrote some of the key documentation required for the project.
- Designed the class diagram and one of the sequence diagrams that would guide the project.
- Built the feature for uploading files to the web application prototype.

## A Sketch of A Pandemic: Information Visualization of COVID in USA (D3 Library of JavaScript) Fall 2020

- Identified the then ongoing COVID pandemic in the USA as an interesting topic for information visualization.
- Organized the information sources to be visualized and filtered some of the data on Excel to produce the final data set.
- Devised and programmed the appropriate and intuitive views to communicate the covid cases and mortality of different countries and motivate comparison with the COVID situation in the USA.

ARTICLES

"Farewell, Professor": Dhaka Tribune, Dhaka, Bangladesh

18th, March, 2018

• A national op-ed article written in tribute to the late Stephen Hawking.