

# Raiyan Reza

(+880) 1706-562505 • srr408@nyu.edu • [www.linkedin.com/in/raiyan-reza](https://www.linkedin.com/in/raiyan-reza) • <https://github.com/srr408> • <https://srr408.github.io/>

## EDUCATION

**New York University**, NYU Shanghai, Shanghai, China

May, 2023

Bachelor of Science, Computer Science, GPA: 3.3 / 4.0

*Relevant Coursework: Software Engineering, Functional Programming, Information Visualization, Data Structures, Basic Algorithms,*

## TECHNICAL SKILLS

**Programming Languages:** Python, C, C++, Haskell

**Operating Systems:** Windows, Linux

**Other Tools:** Django, D3 Library of JavaScript, LaTeX, Pandas, Numpy, Matplotlib, Shyft, HTML, CSS

## EXPERIENCE

**Short-Term Data Analytics Project (Python, Shyft, Pandas, Matplotlib):**

12th Dec, 2023 - 25th Dec, 2023

*Client Information: Confidential; Client Works At A Major Energy Company In Europe.*

- Collaborated with an expert in the energy production field on benchmarking hydrological models.
- Programmed methods for statistical analysis (e.g: Nash–Sutcliffe efficiency) and graphing information in a strict deadline.
- Verified that the statistical analysis and graphing was time feasible: 8759 data points processed in 0.62 +/- 0.07 s in the working dataset, indicative of scalability for a dataset 1000 times larger.

**Private Tutoring in Introductory Programming (Python, LaTeX):**

6th Jun, 2022 - 12th Aug, 2022

*Client Information: Student at International University of Bangladesh; Dhaka, Bangladesh*

- Built a highly individualized curriculum tailored to the client's strengths and weaknesses.
- Designed questions to hone algorithmic thinking and conceptual understanding.
- Created an active learning environment by lively lectures, regular class discussions, quizzes, and assignments.
- Reported to my student's guardians with detailed written progress reports on the student's performance.
- Typeset all assignments, quizzes, homeworks, and progress reports in LaTeX for professional presentation.
- Client obtained one of the highest grades in their university course.

## PROJECTS

**My Personal Website** (HTML, CSS, JavaScript)

Jan, 2024 - Present

*Deployed a fully functional lightweight web page with modern UI/UX standards and conventions.*

- Identified an appropriate template for a professional portfolio page.
- Programmed substantial modifications to the template for effective communication of education, experiences, and skills.

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

Aug, 2022 - Dec, 2022

*Collaborated with my teammate, Anh Nhat (Daisy) Huynh, and thesis advisor, Professor Paul-André Melliès on parsing algorithms.*

- Authored most of the written reports and the literature review that were required by the reviewers.
- Verified that the toy Earley Parser coded by Huynh obtained the theoretical best-case run time of  $O(n)$  for certain inputs.

**Qalb+: A HealthCare Web Application Prototype For United Arab Emirates** (Django)

Aug, 2022 - Dec, 2022

*Collaborated with my team of four on all stages of building a web application prototype letting patients meet doctors online.*

- Established the project's name, Qalb+.
- Designed the class diagram and one of the sequence diagrams that guided the project.
- Built the feature letting doctors and patients upload static files ( reports, lab tests, etc) to the web application prototype.

**A Sketch of A Pandemic: Information Visualization of COVID in USA** (D3 Library of JavaScript)

Aug, 2020 - Dec, 2020

*Created an interactive webpage that contextualized the spread of the pandemic in the USA in a global setting.*

- Identified credible information sources on Our World In Data and Kaggle for the project..
- Programmed interactive and accurate views for displaying COVID cases and mortality for 228 countries in the form of treemap and bar charts.
- Devised a choropleth map to show the time evolution of the pandemic across the USA from Jan, 2020 to Dec, 2020.

## ACTIVITIES

**Undecidability, Uncomputability, and Unpredictability Essay Contest**

April, 2020

*Foundational Questions Institute*

- Competing against physicists, engineers, philosophers and other such professionals, co-authored a well rated essay on the topic of intersection of Gödel's incompleteness theorems, the halting problem, and unpredictability in quantum mechanics.

## LANGUAGES

**English**, IELTS Academic Band Score of 8.0 • **Persian**, Conversational • **Bangla**, Conversational • **Mandarin**, Limited