Raiyan Reza

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EDUCATION

New York University, NYU Shanghai, Shanghai, China   May, 2023
Bachelor of Science, Computer Science, GPA: 3.3
Relevant Coursework: Software Engineering, Functional Programming, Information Visualization

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):   12th Dec, 2023 - 25th Dec, 2023
Client Information: Confidential; Client Works At A Major Energy Company In Europe
- Devised a solution for collecting and compiling hydrological model and observation data from Shyft TimeSeries to a Panda framework in the very limited time given by the client.
- Programmed a Python module that can collect data in a Panda framework for statistical analysis, for example computing Nash-Sutcliffe measures between observation data and hydrological model data.

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.
- Carefully curated and wrote questions typeset in Latex with clear emphasis on algorithmic thinking for regular classwork, quizzes, and tests to create an active learning environment.
- Reported to my student's guardians with detailed progress reports commenting on the student's progress, performance, and other necessary information.
- Client obtained one of the highest grades in their university course.

PROJECTS

Personal Website (HTML, CSS, JavaScript)   Jan, 2024
- Identified an appropriate template for a professional portfolio page.
- Devised necessary and meaningful modifications to effectively communicate education, experience, and skills.
- Deployed a fully functional lightweight web page with modern UI/UX standards and conventions.

Prototyping A Toy Context Free Parser for Chinese Grammar (Python, Haskell)   Aug, 2022 - Dec, 2022
- Communicated and collaborated with my teammate and thesis advisor, Professor Paul-André Melliès, across different time zones during regular meetings.
- Authored most of the written reports and the literature review that were required by the reviewers .
- Calculated performance of the toy Earley Parser coded by my teammate for specific inputs to collect empirical evidence the algorithm had the best-case run time of $O(n)$ for certain inputs as predicted by theory.
- Gave asynchronous presentations to the reviewers with my teammate.

Qalb+: A HealthCare Web Application Prototype (Django)   Aug, 2022 - Dec, 2022
- Collaborated with my team on brainstorming ideas for the intended project.
- Established the project's name, Qalb+.
- 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)   Aug, 2020 - Dec,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.

LANGUAGES
- English (IELTS Academic: Speaking, 8.5; Listening, 8.5; Reading, 8.5; Writing, 7.5; Total, 8.0), Persian (Conversational), Bangla (Conversational), Mandarin (Limited).

INTERESTS
- Sci-fi & Fantasy Novels, Video Games, Chess, Programming, Physics, Writing, Aviation Industry, History of Science