

ERFAN SHAFAGH

📍 Burnaby, BC | ✉ esa104@sfu.ca | ☎ (604) 722-7927 | 🐙 erfanshafagh

SKILLS

- **Programming Languages:** Python, C++, C, HTML
- **Operating Systems:** Linux, Windows
- **Technical:** Data Structures and algorithms, Problem Solving, Debugging
- **Personal Qualities:** Detail-oriented, Creative, Quick learner, Hardworking
- **Database:** SQL, SQLite
- **Version Control:** Git, GitHub
- **Software:** Jupyter Notebook, PyCharm, MS Office, Visual Studio
- **Soft Skills:** Teamwork, Energetic, Strong communication skills, Reliable and responsible

ACADEMIC PROJECTS

Database Management

Apr 2024

Database Systems | CMPT 345 | SFU

- Created a responsive database system with a partner using SQLite which manages and organizes large volumes of data.
- Applied entity-relationship Modeling, database design, SQL schema creation, data population and Python application development by peer reviewing which ensured the quality and correctness of the project.
- Designed multiple normalized tables and avoided data anomalies, ensuring data integrity and consistency and implemented complex queries.
- <https://github.com/erfanshafagh/dbDesign>

Socket Networking

Feb 2024

Operating Systems | CMPT 300 | SFU

- Engaged with a team of two to use UDP sockets in C to achieve two-way communication between users over a network.
- Handled simultaneous operations and incorporated error handling to address potential issues by Utilizing multi-threading, sockets, UDP, and C language to enhance the responsiveness of the chat program.
- Ensured efficient system communication by using UDP sockets to Implement a reliable messaging system.
- <https://github.com/erfanshafagh/s-talk>

Bank Simulation

Oct 2023

Data Structure and Programming | CMPT 225 | SFU

- Cooperated with a team to design and implement the bank simulation application, demonstrating effective teamwork and proficiency in data structures and algorithms.
- Employed dynamic circular queues, ensuring FIFO order and dynamically adjusting capacity to represent the bank lines.
- Achieved a bank simulation system in C++, utilizing priority queues using a binary heap and queues to manage customer arrivals and departures.
- <https://github.com/erfanshafagh/bankSimulation>

SELF DIRECTED PROJECTS

Personal Portfolio Website

Jan 2024

- Developed a personal portfolio website, using a few div sections to showcase skills, projects, experiences, and education.
- Designed a user-friendly navigation system in JavaScript with both desktop and hamburger menus.
- Implemented responsive design principles in CSS to ensure accessibility across different screen sizes.
- Utilized HTML, CSS, and JavaScript to create an interactive and visually appealing portfolio.
- <https://erfanshafagh.github.io/portfolio>

Spotify API

Jun 2023

- Developed a Python script to process audio files, extract metadata, and update a Spotify playlist.
- Integrated with the Spotify API to search for songs and add them to a specified playlist.
- Included multiple audio file formats, using multiple libraries to support MP3, FLAC, and M4A.
- <https://github.com/erfanshafagh/SpotifyAPI>

OTHER WORK EXPERIENCE

Python Tutor

Feb - Mar 2023

Volunteer (Requested by the professor) | CMPT 120 | SFU | Burnaby, BC

- Utilized diverse teaching methods, ensuring the student could grasp the Python material effectively.
- Enhanced my English-speaking skills during many long tutoring sessions.
- Planned tutoring sessions effectively, allocating time to cover various topics and address student needs.

Mathematics Teacher

Mar 2020 – Dec 2022

Freelance | Iran

- Instructed secondary school students in derivatives, integrals, and linear algebra which helped them improve their skills in math.
- Adapted communication style to resonate with the younger generation, using relatable examples and modern references to make the concepts more engaging and accessible.
- Enhanced time management skills by having short sessions for covering topics.

EDUCATION

Bachelor of Computer Science

Jan 2023 – Present

Simon Fraser University | Burnaby, BC

- Current CGPA: 3.14
- Expected graduation date: 2026

INTERESTS

- Listening to podcasts and music
- Watching movies and reading news
- Traveling and exploring cities and countries
- Involving Tech Communities