Luong Nguyen

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TECHICAL SKILLS

- **Programming Languages:** Python, C/C++/C#, Java, JavaScript, Rust, Haskell, SQL
- **Operating Systems:** Linux, Windows, macOS
- **IDES:** Eclipse, Visual Studio Code, PyCharm, Jupyter, Code Blocks
- **Game Engines:** Unity

PROJECT EXPERIENCE

Product Web Scraper in Python
Personal Project July 2025

- Scraped product data by reading webpages with the Requests library, parsing them with Beautiful Soup, and obtaining relevant data by filtering HTML tags by their attributes.
- Organized data for each product into dictionary entries, combining them into a singular DataFrame, and sorting them by either relevance, price, rating, or number of reviews.
- Created an interface using various widgets from within the Tkinter library; enabling users to easily search for products, scroll through and open results, filter out websites, and select one of the aforementioned sorting options.

Personal Portfolio Website in HTML/CSS/JavaScript
Personal Project May 2025

- Created multiple connected HTML pages, displaying images and information relevant to their page title in various different layouts.
- Customized appearance of webpages using CSS, along with adding specifications for various window sizes; ensuring that pages keep their format when zoomed out and remain legible when zoomed in.
- Improved website interactability by writing functions and adding event listeners within JavaScript, along with creating classes that would streamline the addition of future content.

Transactional Storage Manager in C++
School Project Jan – April 2025

- Abstracted storage system by using buffering to manage page access, which, when full, would evict pages that had been used least recently.
- Connected data entries using a towered skip list with randomly generated tower heights for each entry to improve indexing efficiency.
- Ensured data integrity with the implementation of locking and logging managers that control and keep track of concurrent data transactions along with their final commits or aborts.

First-Person Shooter Game in C# with Unity
Personal Project May – Dec 2024

- Implemented game logic including enemy AI, shooting, movement, HUD, objective tracking, interactions, and health with scripts and built-in Unity features such as the input system.
- Designed the game level; utilizing the ProBuilder tool for map creation and NavMesh agents for enemy pathing and patrol routes.
- Enhanced game appearance by making use of free assets such as weapon models, sounds, and textures, along with creating animations for various actions.

City Population Prediction in Python
School Project Sept – Dec 2024

- Analyzed relationships among data by visualizing them with plots and performing T-Tests on divided sections to confirm initial hypothesizes; filtering out inputs that did not pass.
- Created voting regression models with various algorithms, training them with some of the data and leaving the rest for scoring; fine tuning parameters to get the best results.
- Concluded in a written report that although some of the inputs were sufficiently related to population to imply correlation, the relations were not strong enough for reliable predictions.

Top-Down Dungeon Game in Java
School Project Jan – April 2024

- Designed game with group members by creating a Unified Modeling Language diagram.
- Wrote scripts containing classes and methods that implemented image scaling, the health system, and random object placement; making use of libraries such as Image IO and Graphics2D.
- Created JUnit tests for various methods, with assertion statements and functions from the Mockito framework to verify the game's functionality.

Database Application in Python
School Project Jan – April 2024

- Implemented a database schema from an Entity–relationship model, creating corresponding tables along with their primary and foreign keys, checks, and triggers to reinforce dependencies.
- Wrote various queries and insertion/deletion operations in SQLite for the database and integrated them into the application to use values provided by users.
- Created an interface that displayed available query and database manipulation operations to users and asked for specific input.

EDUCATION

Simon Fraser University, Burnaby, BC Sept 2021 - Present

- Bachelor of Science – Computing Science
- Minor in Business