

Tianle Wang

Toronto • thomasyorafa@gmail.com • +1 (416) 529-4853 • [Github](#) • [Linkedin](#)

PROFESSIONAL EXPERIENCE

Selected Project Experience

- [UTLeetcoder \(React, Javascript\)](#)
 - A platform to track users' Leetcode statistics. Currently managing and serving over 30 users.
 - Developed the frontend using React and Ant Design UI Library for an intuitive and user-friendly interface
 - Handle post requests to Leetcode's GraphQL interface, retrieve and serialize user data by Node.js.
 - Hosted on GitHub, deploying it to GitHub Pages, and utilized GitHub Actions to trigger backend updates.
- [UTodo \(Django REST\)](#)
 - Developed a Restful API to handle actions on school courses by the Django REST framework.
 - Implemented user registration functionality, allowing users to create accounts and authenticate securely.
 - Utilized Django ORM to interact with the database and perform CRUD operations on course data.
- [Analysis of BERT and LSTM Based Models on Multi-label Coding Questions Classification](#)
 - Built two models based on BERT and LSTM with PyTorch and TensorFlow frameworks.
 - Conducted special fine-tuning techniques to optimize model performance and achieve high accuracy.
 - Performed comprehensive analysis, evaluation, and comparison of the performance of BERT and LSTM.
 - Demonstrated through analysis that BERT outperforms LSTM and achieves higher accuracy in some tasks.
- Web Server (Socket Programming, C)
 - Implemented a simple CGI program by C with Linux System Call.
 - Deployed a local server using sockets and utilized sockets as clients for each request sent to the server.
 - Utilized the select and pipe to process multiple socket I/O requests in a single thread simultaneously.
- [Pokémon-like Word Game \(Java\)](#)
 - Developed the game following the design concept of clean architecture and the principles of SOLID.
 - Utilized design patterns, such as Momento to implement Save/Load functionality.
 - Implemented the game's functionality using the Gson module to save and read game data.
 - Expanded the game's interface beyond the command line by utilizing the Swing module to create a GUI.
- Game Collection Project (Python, Pygame)
 - Implemented a collection of small puzzles using the Pygame Module.
 - Utilized stack and queue by list to implement DFS and BFS algorithms for the puzzles.
 - Developed a word ladder game that finds the shortest path with BFS algorithms.
 - Created a Sudoku game with BFS algorithm to generate and solve the puzzles and give hints.
 - Designed and implemented an expression tree game that evaluates mathematical expressions.

EDUCATION

UNIVERSITY OF TORONTO

Honors Bachelor of Science, Specialise in Mathematics; Minor in Computer Science

Relevant Courses: Software Design, Software Tools and System Programming, Data Structure and Algorithm, etc.

Toronto, ON

SEP 2020 - JUNE 2023

ADDITIONAL INFORMATION

- Technical Skills: Python, C/C++, Javascript, R, Java, HTML, CSS
- Libraries: React, REST, Django, PyTorch, Matplotlib, NumPy, Scikit-learn, etc.
- Development Tools: Vscode, Pycharm, Vim/Neovim, R-Studio, IntelliJ
- Miscellaneous: Shell (Bash), LaTeX, Markdown/RMarkdown, Git