

Xiangke Chen

Atlanta, GA | xiangkechenjob@gmail.com | 540.666.0542

Education

Virginia Tech | Blacksburg, VA

Master of Science in Computer Science

Expected date of graduation, May 2024

Virginia Tech | Blacksburg, VA

Bachelor of Science in Computer Science

Expected date of graduation, May 2023

Relevant Coursework: Android Mobile app development, Capability of reading and understand code, software development, data analysis and algorithm, Web development, CS Ethics

Experience

Machine Learning Research – Computer Vision (Python)

May 2021 – July 2021

Team member

- Setup VGG network model on **PyTorch** environment based on a template code found on GitHub.
- Imported image data sets from Kaggle labeled as training data sets and validation data sets.
- Changed directions and rotated of the data sets by python function to increase training data diversity.
- Adjusted the brightness, contrast, sharpness, and saturation of the data sets to increase training data diversity.
- Optimized parameters and hyperparameters to boost up the accuracy and lower the model loss.
- Have good command of python programming language.
- Finished and published article as a co-writer.

Projects

Your Time android mobile app (Kotlin)

August 2022 – October 2022

- An Android mobile app that track user's time expenditure, developed in Android studio.
- Designed wireframes and use cases. Proposed function and non-function requirements and the basic blueprint.
- Implemented stopwatch function for users to track events.
- Implemented other functions like marking the location, adding the notes and the pictures and labeling categories.
- Accomplished sorting function for existing event by category.
- Coding user-friendly app interface by using navigation, recycle view, spinner.
- Kept the recorded data correct by using MVVM architecture.
- Used Firebase Realtime Database to store user's data in the app.
- Synchronized the online and the local data when local data modified.
- Collaborated with team member on GitHub, Trello board, and other online communication tools.

Thread Pool Implementation (C)

March 2022 – April 2022

- Implemented threads pool by fork-join framework along with concurrency using mutex locks.
- Built threads management functions for program usability by killing the threads based on queue structure.
- Used multiple local queues and global queue structure to distribute tasks evenly.
- Coded work stealing mechanism to manage tasks between different threads' queues for efficiency improvement.

Covid-19 Case-Fatality Ratio by Race/Ethnicity Visualization – course name (Java)

August 2020 – December 2020

- Coded to read, parse, and calculate the input file to retrieve the data needed.
- Implemented a GUI Window to display the bar charts that representing stats for 5 racial group in selected states.
- Stored the data in a combination of Doubly-LinkedList and ArrayList data structure.
- Realized alphabet-based sorting function to display different stats in required order.

Technical Skills

Programming Language: Java, Kotlin, python, C, Shell, HTML

Software/system: GitHub, Eclipse, IntelliJ, PyCharm, Visual Studio Code, Android Studio, Figma, Linux, MacOS

Languages: Chinese (native)

Other

Professional Organizations: Math Club, Chinese Student and Scholar Association