Allen Peng Lu

11120 76 Ave NW Edmonton, AB. T6G 0J8 || Phone: 604-788-6862

E-mail: aplu@ualberta.ca

LinkedIn: https://www.linkedin.com/in/allen-lu-219115195/

Skilled in the deployment and maintenance of elegant Android Studio mobile applications. Experienced in developing operating system components such as Linux Shells and Simulated File Systems. Well-versed in various algorithm design paradigms using discrete mathematics. Experienced in Object Oriented design, analysis, and implementation in teams of 2-6 developers.

Areas of Expertise

- Python
- Python SQLite3
- Excel Forecasting Simulations
- Java
- C/C++
- Android Studio
- Mips Assembly

Education

- Computing Science, 3rd Year, University of Alberta (Sept 2016 – Scheduled for April 2021)

Personal Projects

Git handle: ApluUalberta

Weightlifting Android Studio Project (April 2019 – Present)
Gravity – Android Mobile App
Github Link: https://github.com/ApluUalberta/Gravity
- Android Mobile Phone Application suited for Powerlifting-specific weightlifting
- Utilizes Google Firestore API to keep track of User Data, progress, and achievements
- Creates a game-like achievement system that compares User's progress to real Powerlifting Federations
- Plots user work-out numbers on a line graph that can be found under the user's profile
- Integrated 1-rep-max calculator that auto-updates the user's achievements and progress

Crime Statistics Database Program (March 2019 – April 2019)
Crime Statistics UI - Edmonton Open Data Initiative
Github Link: https://github.com/ApluUalberta/Crime-Statistics-Database-Program
- Simple Command Line Interface that allows for 4 complex database queries on a given Database
- Embedded SQLITE3 Queries in Python to create a simple UI
- Imported Pandas and Folium Libraries to plot queried data onto graphs

- Menu Entry runs 1 of 4 Queries depending on user input
  - Each Require Additional input, such as year

LPT-Johnson Scheduling Program (September 2019 – December 2019)
File Instance Generator and Average Plotter
Github Link: https://github.com/ApluUalberta/LPT-Johnson-Scheduler
- Takes in files (-i argument) or generates 400,000 Random File instances (-r argument) with Specific format
- Schedules specified number of Jobs with a specified size and number of machines using LPT and Johnson Algorithms to read the instance files
- Takes the Average Ratios of Processing Time of specified file groups for the given algorithms and Plots them on 2d, and 3d graphs using GNU Plot

Hobbies

- Powerlifting, Drone Photography, RC Vehicle Modification, E-Commerce Entrepreneurship