Allen Peng Lu

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Skilled in the development and maintenance of mobile applications while meeting time constraints. Experienced in UI and low-level module testing and troubleshooting with Arduino hardware and computer software. Well-versed in various algorithm design paradigms using discrete mathematics. Experienced in Object-Oriented design, analysis, and prototyping in teams of 2-6 developers.

Core Competencies

- 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

Mood-Tracker Android Studio Group Project (September 2019 – December 2019)

Glo – Android Mobile App

Github Link: https://github.com/CMPUT301F19T03/GroupProject1

- Programmed in Java, tracks a user's emotional state and allows them to follow friends
- A collaboration of 6 group members using Github pull requests and SCRUM to encourage collaboration
- Google Maps and Firestore API to keep track of user moods, times, dates, reasons, and location
- Extensive Revisioning of App Interfaces to provide an eye-pleasing interface
- Weekly team meetings, remote communication with discord, and extensive UML re-versioning

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
- An integrated 1-rep-max calculator that auto-updates the user's achievements and progress

Arduino Powerlifting Lock Box (December 2019 – Present)

Chalk Bowl Locking Mechanism – Arduino Uno

- Programmed Arduino Project to make a Weightlifting Chalk bowl lockable
- 4-digit keypad verification password Solenoid Door lock mechanism with a 6V Relay
- Secured in a locked Plywood container, attached to a hinge and a lid.
- Satisfying customer concerns by continuous prototype iterations to address design criticism and flaws

Hobbies

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