## Allen Peng Lu

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Self motivated computing science student skilled in building and maintaining mobile applications while meeting stringent time constraints. Well-versed in various algorithm design paradigms using discrete mathematics. Experienced in Object-Oriented design, analysis, and prototyping in teams of 3-6 developers to exercise creativity, initiative, and synergy.

## **Core Competencies**

Python

Java

• Android Studio

Python SQLite3

• C/C++

Mips Assembly

### **Education**

• Computing Science, 3<sup>rd</sup> 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 data (moods, times, dates, reasons, and location)
- Extensive Design revisioning and development of front-end user interface and testing
- Weekly team meetings, remote communication with discord, and extensive UML re-versioning

### **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

#### **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