

# Allen Peng Lu

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

Skilled in the development and maintenance of elegant mobile applications while meeting time constraints. Experienced in creating embedded query database programs, database relationships, and querying with database API. Well-versed in implementing optimal algorithm design paradigms to app development and UI navigation. Experienced in Object-Oriented design, analysis, and implementation in teams of 2-6 developers.

## Core Competencies

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

## Education

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- 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>

- A collaboration of 6 group members using Github pull requests to encourage collaboration
- Google Maps and Firestore-hosted workloads to keep track of user moods, times, dates, reasons, and location
- Extensive Revisioning of App Interfaces to provide an eye-pleasing interface
- Tasked with automated UI testing to ensure product was presentable, fast, and effective
- Presented the final product to 50 non-technical people

#### 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

#### Paper Review Database Program (February 2019 – March 2019)

Paper Reviewing Terminal UI – Presentation Paper Database

Github Link: <https://github.com/ApluUalberta/Paper-Review-Database-Program/tree/master/src>

- Simple Command Line Interface that allows for 7 complex database queries on a given Database
- Embedded SQLITE3 Queries in Python to generate query data on Linux terminal UI
- Imported Pandas and matplotlib Libraries to plot queried data onto graphs
- Queries and UI tested extensively with various sample databases of different sizes

## Hobbies

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

## **Allen Lu**

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**January 12, 2020**

**Heather Finn**

**STEMCELL Technologies**

**1618 Station Street**

**Vancouver, BC V6A 1B6**

**Re: Systems Co-op Student (8 months)**

To Heather Finn,

As a passionate and fast-learning problem solver that is well-versed in software development tools and algorithm design and circuit technology, it is with great excitement that I have submitted my resume for consideration to become an 8-month systems development intern of STEMCELL Technologies Vancouver. As an efficient and vocal team-oriented developer I have experience in Android mobile application development, testing, and presentation in combination with a low-level understanding of computer architecture, C/C++, and operating systems design. I am prepared to contribute to your company's technological goals in developing scalable and effective automated tools while meeting any time constraints necessary to complete the task.

I am currently in 3<sup>rd</sup> year pursuing a degree in computing science with a specialization in software practice at the University of Alberta. My focus is on using and understanding software on multiple levels, computer architecture, operating systems, and the application of discrete mathematics in algorithm design. Please look at the following project examples from my resume, which outlines the competencies that I can leverage to further the goals of STEMCELL Technologies Vancouver.

- Designed, developed, and tested an elegant Mood-Tracking Android Studio mobile application in a team of 6 developers using Google maps and Firestore API.
- Created a crime-statistic program with SQLite3 embedded Python with a terminal interface that allows the user to generate graphs and data using Edmonton's crime data.
- Created a Linux shell in C++ which handles running executable files, cd, PWD, file output redirect, and background process execution.
- Created an LPT-Johnson CPU Scheduling performance evaluator by creating 400,000 random file instances with the GNU Plot Software

My resume provides further detail about the unique skill set and passion I can bring to your team. I truly believe that my experience in programming coupled with my low-level knowledge in databases and computer architecture will allow me to excel in the STEMCELL systems development environment. I hope we can schedule an appointment to talk, thank you for the consideration.

Sincerely,

Allen Lu