

Allen Peng Lu

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

Skilled in the deployment and maintenance of elegant Android Studio mobile applications. Hometown is in Vancouver and seeking an 8-month internship opportunity. Experienced in developing operating systems and hardware computer components such as Linux Shells and Arduino Projects. Well-versed in various algorithm design paradigms using discrete mathematics. 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 | • Microsoft Office | |

Education

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

Personal Projects

Git handle: ApluUAlberta

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.
- Upgrades and fixes are drawn and implemented after listening to user feedback on design flaws

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 to encourage collaboration
- Google Maps and Firestore API to keep track of user moods, times, dates, reasons, and location
- Tasked with extensive UI and Back-end Module Testing for Low and High-level bugs.
- 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 for graphs and statistics generated from menu queries

Hobbies

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

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January 12, 2020

Heather Finn

STEMCELL Technologies

1618 Station Street

Vancouver, BC V6A 1B6

Re: Instrumentation Co-op Student (8 months)

To Heather Finn,

As a passionate and fast-learning problem solver that is well-versed in developing software tools, algorithm design, and circuit technology, it is with great excitement that I have submitted my resume for consideration to be an 8-month instrumentation intern with 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 my experience designing and programming Arduinos to solve real-world problems. I am prepared to contribute to your company's technological goals in developing and optimizing robotic technologies while performing any risk assessments, design evaluations, and experiments necessary to ensure quality and efficiency.

I am currently in 3rd 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 and efficient Mood-Tracking Android Studio mobile application in a team of 6 developers using Google maps and Firestore APIs.
- Created and tested 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.
- Currently developing a custom Arduino lock for a powerlifting gym while listening to customer concerns and criticisms to create newer and improved versions.

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 knowledge in Arduino design prototyping will allow me to excel in the STEMCELL instrumentation environment. I hope we can schedule an appointment to talk, thank you for the consideration.

Sincerely,

Allen Lu