UNIVERSITY OF WATERLOO
CO-OPERATIVE EDUCATION RECORD

YINGZI ZHANG
20515934
1B MECHATRONICS ENGINEERING

WORK TERM		EVALUATION
FALL 2014	**IMAGGLE INC** TOKYO JAPAN IOS SOFTWARE ENGINEERING	
WINTER 2014	**UNIVERSITY OF WATERLOO** **MANAGEMENT SCIENCES** WATERLOO RESEARCH ASSISTANT	OUTSTANDING

Cherry Zhang

Mechatronics Engineering
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Experience/Skills

- **Experience in programming and proficient in learning new languages**:
  - Java, OOP, and Android with the Eclipse and Android Studio (lots of past experience)
  - C++ (two university courses, project Euler, CS club)
  - VBA (learned independently in 1 day and then debugged and developed VBA programs)
  - Data Structures and Algorithms (from a university course)
- **Experience in Markup Languages/Scripting**
  - XML (Android), HTML/CSS (bootstrap, made personal website), JavaScript (online course)
- **Experience in technical writing/software documentation**
  - Wrote: a product requirements document, functional specifications document, a design specifications document, and a research paper on reading disabilities
- **Basic Knowledge in Databases**
  - Read a book on relational databases and implemented SQLite in an Android application
- **Fluent in English**; can write/understand basic Japanese and French, understands basic Chinese

Past Work Experience

- **Android Developer and Research Assistant** (University of Waterloo)
  - Researched about reading disorders, and independently created a whole application to help people with reading disorders on Android
  - Tasks: software documentation and design, implementation, debugging and testing
- **Android Developer** (Imaggle Inc.)
  - Created the Android version of the current Imaggle application (mobile e-commerce app)
- **Android Developer** (Microsoft Japan) (Current)
  - Helping with the front end client application and the UI for a Microsoft application on Android

Side Projects

- **HTML parser** (Android; without using an HTML parsing library)
- **App for Strategic Video-Game** (Android)
  - An app that helps players of a real-time strategic game (with multiple timers)
- **Hangman Game** (Android)
- **Drawing Application** (Android)
- **Side-Scroller Game** (Java Applet and Android)
  - Practiced developing and finishing a simple Java applet game and ported it onto Android (from an online tutorial)
  - Learned and implemented basic game physics (e.g. gravity, collision detection, parallax scrolling)
- **AirBnb-like application** (Android)
  - Developed at Tech-a Heckathon (Japanese hackathon)
- **Project Euler** (C++)
  - Currently doing this series of challenging mathematical/computing programming problems

Education and School Projects – Candidate for BaSc in Mechatronics Engineering at University of Waterloo

- **C++ Program to Find Optimal Solution for Minimal Cost Truss Structure**
  - Final summative for physics course, attained the optimal solution, and got 100% for the project
- **Robot Design and Programming Project**
  - Designed a garbage collecting robot, using ultrasonic and touch sensors, and motor encoders
  - Programmed the sensor processing of the robot using Robot-C

    - Wrote a technical report on the design and construction of the robot
- **Fuel Cell Car Project**
    - Assembled the car to the hydrogen fuel cell
    - Programmed the fuel cell car in C-based language to sense a colored strip and drive along the strip's path

Achievements & Awards

- **In the Top 10 of the Mechatronics Class of 2018 (6th place out of 142 students) with 4.0 GPA**
- **In the Engineering Dean's Honour List**
- **Scholarship and award for highest average mark in grade 12**
    - Achieved a final mark of 96.5%
- Highest mark for academic level science in the class
- Highest mark for university level computer science in the class
- Business and Entrepreneur Award for Computer Science Studies
- Nominated for Co-op Student of the Year Award by previous employer
- Completed advanced placement courses: Calculus, Advanced Functions, Physics, Biology, and English
- Gold Medal in Regional Waterloo Science and Engineering Fair (Biotechnology)

Volunteering Experience

- **Hackathon Mentor at DMTC (Fall 2014)**
    - Mentor for two Japanese hackathons at hackathon providing company, DMTC
    - Taught participants the fundamentals of Android programming, Android Studio, Eclipse IDE, Android SDK, and also git and Github
- **Volunteered for UW Explorations (exposing teenagers to engineering) (Winter 2014)**
    - Participated in a meeting with other volunteers
        - Designed activities for the teenagers to do to help them be exposed to engineering
    - Independently developed a VBA application that the teenagers used in an activity which taught them basic engineering skills
- **Volunteered for STRUM (Student Teaching Refugees Universal Music) (Summer 2012)**
    - An official student-run organization founded by high school students
    - Volunteered to be a violin instructor; taught how to read music with creative games
    - Organized and implemented a schedule of music lessons for children throughout the program

Extracurriculars and Self-Interests

- **Independently Learned about Relational Databases**
    - Learned about the different types of databases (tree, network, relational)
    - Learned basic terminology (fields, records, etc.) and operations in SQL
    - Implemented SQLite in a Java application
- **Member of Women Who Code (Waterloo and Tokyo) Group**
- **Member of Android Group in Tokyo**
- **Member of Computer Science Club**

UNIVERSITY OF WATERLOO
UNOFFICIAL GRADE REPORT

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Winter 2015	MTE	200A	Seminar	
Winter 2015	MTE	201	Exp. Meas. & Stat. Analysis	
Winter 2015	MTE	202	Ordinary Differential Equation	
Winter 2015	MTE	219	Mechanics of Deformable Solids	
Winter 2015	MTE	262	Microprocessors Digital Logic	
Winter 2015	PSYCH	101	Introductory Psychology	
Winter 2015	SYDE	182	Physics 2 (Dynamics)	

Term Average: n/a Decision:

Fall 2014	COOP	2	Co-operative Work Term	
Fall 2014	PD	21	Eng'g Wrkplace Skills II:	

Term Average: n/a Decision:

Spring 2014	MATH	118	Calculus 2 for Engineering	95
Spring 2014	MTE	100B	Seminar	
Spring 2014	MTE	111	Structure & Prop. of Materials	94
Spring 2014	MTE	119	Statics	86
Spring 2014	MTE	120	Circuits	93
Spring 2014	MTE	140	Algorithms and Data Structures	98

Term Average: 93.2 Decision: Excellent standing

Winter 2014	COOP	1	Co-operative Work Term	
Winter 2014	PD	20	Eng'g Workplce Skills I:	CR

Term Average: n/a Decision:

Fall 2013	CHE	102	Chemistry for Engineers	91
Fall 2013	GENE	121	Digital Computation	86
Fall 2013	MATH	115	Linear Algebra (Eng)	87
Fall 2013	MATH	116	Calculus 1 for Engineering	95
Fall 2013	MTE	100	Mechatronics Engineering	86

Term Average: 88.7 Decision: Excellent standing