UNIVERSITY OF WATERLOO CO-OPERATIVE EDUCATION RECORD

HELI WANG 20552080

3A COMPUTER SCIENCE

WORK TERM		EVALUATION	
SPRING 2016	SAP CANADA INC	EXCELLENT	
	WATERLOO SOFTWARE APP DEVELOPER-EMERGING TECHNOLOGIES TEAM		
FALL 2015	ONTARIO MINISTRY OF EDUCATION COMMUNITY SERVICES I & IT CLUSTER TORONTO	OUTSTANDING	

APPLICATION PROGRAMMER

Heli (Harlan) Wang

Third Year Computer Science • Cumulative Avg 89.3% - **GPA 3.9/4.0** heli.wang@uwaterloo.ca • (226) 978 7328 • http://heliwang.github.io

Skills and Projects

Back End Development

Two years experience in C++ and Java; Proficient in C# Asp.net MVC architecture and LAMP (Linux, Apache, MySQL, PHP) stack; Familiar with Apache Maven and SAP HANA Smart Data Streaming Platform.

• Related Project: UwBook.ca (Microsoft SQL Server + WebAPI)

Efficient in **Node.js** and **Express**; Comfortable in **RDBMS** and **NoSQL** databases; Practiced in **WebSocket** and security (**SSL**, **PAM**, **Session**, **CSRF Protection**).

Related Project: TP Registration System

Front End Web Design

Work experience in **Bootstrap**, **¡Query**, and **CreateJS** frameworks.

Related Project: Chat Noir - A browser game

Comfortable with both Web-based and Android native mobile app development.

• Related Project: Cloud Café - A hybrid mobile app (AngularJS + Ionic)

Desktop Software Programming

Eight years of development experience in **EPL** (an object oriented language) by publishing 40+ open source projects in the EPL community; Familiar with **x86** assembly, Unix Shell Programming.

• Related Project: MicroVita AntiSpyware - A self-developed anti-virus engine

Working Experience

May 2016 -August 2016

Software App Developer (Co-op) SAP Canada Inc., Waterloo, ON

- Worked on a SAP **edge computing solution** to capture, analyze and act on **real-time** event streams from Internet of Things (**IoT**) devices
- Extended the backend plug-in system of IoT devices in **JAVA** by creating **custom adapters** to the SAP Data Stream Processor (**StreamingLite**).
- Enriched control panels of IoT enterprise cores by **NodeJS**, Mosquitto (a **MQTT** protocol broker), SQL **stored procedures**, and SAPUI5.
- Got excellent performance review with comments "learnt 'a tonne of' new SAP technology in a single work term", "highly committed and productive".

September 2015 - December 2015

Application Programmer (Co-op) Ontario Ministry of Education, Toronto, ON

- Implemented **responsive** web applications with JS **MVVM** frameworks.
- Customized WordPress sites by HTML5/CSS3/JavaScript/TypeScript and PHP.
- Designed test cases for Oracle Siebel in HP Quality Center.
- Recommended in Linkedin by the supervisor as "dedicated and reliable", "handling additional tasks on his own initiative" and "a key team player".

May 2015 -June 2015

PHP Web Developer (Part-time) Chanmao Inc., Markham, ON

• Participated in the business logic layer development of a B2C mobile app by Yii framework (Object/Relational Mapping) and MySQL.

UNIVERSITY OF WATERLOO UNOFFICIAL GRADE REPORT

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Winter 2017	CS	370	Numerical Computation	
Term Average: n/a			Decision:	
Fall 2016 Fall 2016	CS CS	341 349	Algorithms User Interfaces	
Fall 2016	CS	350	Operating Systems	
Fall 2016	PHYS	224	Electromagnetism for Life Phys	
Term Average: n/a			Decision:	
Spring 2016	COOP	2	Co-operative Work Term	
Spring 2016 Spring 2016		10 200M	Professional Resp in Computing	CR NG
Spring 2016	VVNKFI	200IVI	Work-term Report	NG
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Term /	Average: n	/a	Decision: Excellent standing	
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Winter 2016	CS	240	Data Structures & Data Mgmt	79 97
Winter 2016 Winter 2016	CS CS	240 241	Data Structures & Data Mgmt Foundations of Sequential Prog	87
Winter 2016	CS CS CS	240	Data Structures & Data Mgmt	_
Winter 2016 Winter 2016 Winter 2016	CS CS CS MATH	240 241 251	Data Structures & Data Mgmt Foundations of Sequential Prog Computer Organization & Design	87 83
Winter 2016 Winter 2016 Winter 2016 Winter 2016 Winter 2016	CS CS CS MATH	240 241 251 239 112	Data Structures & Data Mgmt Foundations of Sequential Prog Computer Organization & Design Intro to Combinatorics	87 83 86
Winter 2016 Winter 2016 Winter 2016 Winter 2016 Winter 2016	CS CS CS MATH PHYS	240 241 251 239 112	Data Structures & Data Mgmt Foundations of Sequential Prog Computer Organization & Design Intro to Combinatorics Physics 2	87 83 86
Winter 2016 Winter 2016 Winter 2016 Winter 2016 Winter 2016 Term A	CS CS CS MATH PHYS	240 241 251 239 112	Data Structures & Data Mgmt Foundations of Sequential Prog Computer Organization & Design Intro to Combinatorics Physics 2	87 83 86
Winter 2016 Winter 2016 Winter 2016 Winter 2016 Winter 2016	CS CS CS MATH PHYS	240 241 251 239 112	Data Structures & Data Mgmt Foundations of Sequential Prog Computer Organization & Design Intro to Combinatorics Physics 2 Decision: Excellent standing	87 83 86

Spring 2015 Spring 2015 Spring 2015	CS PD	245 246 1 231	Logic and Computation Object-Oriented Software Devel Co-op Fundamentals Statistics	84 90 CR 85
Spring 2015 STAT 231 Term Average: 86.3			Decision: Excellent standing	00
Winter 2015 Winter 2015 Winter 2015 Winter 2015 Winter 2015 Winter 2015	ECON MATH MATH PHYS	136 102 136 138 111 230	Elem Alg Design & Data Abstrac Intro to Macroeconomics Linear Algebra 1 (Hon Math) Calculus 2 For Honours Math Physics 1 Probability Decision: Excellent standing	88 98 91 95 99
Fall 2014 Fall 2014 Fall 2014 Fall 2014 Fall 2014 Fall 2014	CS ECON ESL MATH MATH SEQ	135 101 101R 135 137	Designing Functional Programs Intro to Microeconomics Oral Commun - Acad Purposes Algebra for Hons Mathematics Calculus 1 for Honours Math Co-op Sequence 2	92 87 79 93 97

Term Average: 89.6 Decision: Excellent standing