University of Waterloo 200 University Ave. West Waterloo Ontario Canada N2L3G1

Undergraduate Unofficial Transcript

Name: Zhang, Zhehai Student ID: 20883582

Ontario Education Nbr: 790187553

Beginning of Undergraduate Record

Fall 2020

Program: Computer Science, Honours, Co-operative Program

Level: 1A Form Of Study: Enrolment

<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
CS	145	Designing Functional Programs (Advanced Level)	0.50	0.50	90
ENGL	109	Introduction to Academic Writing	0.50	0.50	85
MATH	135	Algebra for Honours Mathematics	0.50	0.50	98
MATH	137	Calculus 1 for Honours Mathematics	0.50	0.50	90
MTHEL	199	Special Topics	0.25	0.25	CR
Course Topic	c:	First year readiness			
PHYS	121	Mechanics	0.50	0.50	93
			<u>In GPA</u>	<u>Earned</u>	
Term GPA		91.20 Term Totals	2.75	2.75	
Cumulative (GPA .	91.20 Cumulative Totals	2.50	2.75	
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Faculty Average: 92.67 Computer Science, Honours, Co-operative Program

Academic Standing: Excellent Standing Effective 01/21/2021

Term Honours: Term Distinction

Winter 2021

Program: Computer Science, Honours, Co-operative Program

Digital Hardware Specialization

Level: 1B Form Of Study: Enrolment

<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
CS	146	Elementary Algorithm Design and Data Abstraction	0.50	0.50	93
		(Advanced Level)			
ECE	124	Digital Circuits and Systems	0.50	0.50	97
ECON	101	Introduction to Microeconomics	0.50	0.50	99
GENE	123	Electrical Circuits and Instrumentation	0.50	0.50	96
MATH	136	Linear Algebra 1 for Honours Mathematics	0.50	0.50	90
MATH	138	Calculus 2 for Honours Mathematics	0.50	0.50	98
			<u>In GPA</u>	<u>Earned</u>	
Term GPA		95.50 Term Totals	3.00	3.00	
Cumulative GPA		93.54 Cumulative Totals	5.50	5.75	
Ecoulty Aye	rogo:	02.17 Computer Science Hangura Co energtive	Drogram		

Faculty Average: 93.17 Computer Science, Honours, Co-operative Program

Academic Standing: Excellent Standing Effective 05/19/2021

Term Honours: Term Distinction

Spring 2021

Program: Computer Science, Honours, Co-operative Program

Digital Hardware Specialization

Level: 2A Form Of Study: Enrolment

Course		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
CS	245	Logic and Computation	0.50	0.50	94
CS	246	Object-Oriented Software Development	0.50	0.50	98
MATH	239	Introduction to Combinatorics	0.50	0.50	88
PD	1	Career Fundamentals	0.50	0.00	CR
SPCOM	225	Interviewing	0.50	0.50	94
STAT	230	Probability	0.50	0.50	94
		·	<u>In GPA</u>	<u>Earned</u>	
Term GPA		93.60 Term Totals	3.00	2.50	
Cumulative	GPA	93.56 Cumulative Totals	8.00	8.25	
Major Average:		95.00 Computer Science Honours Co-oper	ative Program		

Major Average: 95.00 Computer Science, Honours, Co-operative Program Faculty Average: 93.30 Computer Science, Honours, Co-operative Program

Academic Standing: Excellent Standing Effective 09/14/2021

Term Honours: Term Distinction

Undergraduate Unofficial Transcript

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Fall 2021

Program: Computer Science, Honours, Co-operative Program

Digital Hardware Specialization

Level: 2B Form Of Study: Co-op Work Term

Course Description Attempted Earned Grade Co-operative Work Term COOP 1 0.50 0.00 CR PDProcesses for Technical Report Writing 0.00 CR 11 0.50 In GPA **Earned** Term GPA 0.00 Term Totals 1.00 0.00 Cumulative GPA 93.56 Cumulative Totals 8.25 8.00 95.00 Computer Science, Honours, Co-operative Program Major Average: Faculty Average: 93.30 Computer Science, Honours, Co-operative Program

Winter 2022

Program: Computer Science, Honours, Co-operative Program

Digital Hardware Specialization

Level: 2B Form Of Study: Enrolment

<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
CS	240	Data Structures and Data Management	0.50	0.50	88
CS	241	Foundations of Sequential Programs	0.50	0.50	83
ECE	222	Digital Computers	0.50	0.50	83
JAPAN	101R	First-Year Japanese 1	0.50	0.50	71
STAT	231	Statistics	0.50	0.50	91
			<u>In GPA</u>	<u>Earned</u>	
Term GPA		83.20 Term Totals	2.50	2.50	
Cumulative GPA		91.10 Cumulative Totals	10.50	10.75	
Major Average:		89.83 Computer Science, Honours, Co-operative	re Program		
Faculty Average:		91.92 Computer Science, Honours, Co-operative	re Program		

Academic Standing: Excellent Standing Effective 05/19/2022

May 19/22 - DEF to ECXL as a result of grade revision CS 241

Spring 2022

Program: Computer Science, Honours, Co-operative Program

Digital Hardware Specialization

Level: 3A Form Of Study: Co-op Work Term

<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
COOP	2	Co-operative Work Term	0.50	0.00	CR
PD	10	Professional Responsibility in Computing	0.50	0.00	CR
			<u>In GPA</u>	<u>Earned</u>	
Term GPA		0.00 Term Totals	1.00	0.00	
Cumulative G	PA	91.10 Cumulative Totals	10.50	10.75	
Major Average:		89.83 Computer Science, Honours, Co-operati	ve Program		
Faculty Avera	age:	91.92 Computer Science, Honours, Co-operati	ve Program		

Fall 2022

Program: Computer Science, Honours, Co-operative Program

Digital Hardware Specialization

Level: 3A Form Of Study: Enrolment

Course		<u>Description</u>	<u>Attempted</u>	Earned	<u>Grade</u>
CS	341	Algorithms	0.50	0.50	83
CS	349	User Interfaces	0.50	0.50	93
CS	350	Operating Systems	0.50	0.50	83
EARTH	121	Introductory Earth Sciences	0.50	0.50	78
ECE	224	Embedded Microprocessor Systems	0.50	0.50	84
			<u>In GPA</u>	Earned	
Term GPA		84.20 Term Totals	2.50	2.50	
Cumulative GPA		89.77 Cumulative Totals	13.00	13.25	

Major Average: 88.67 Computer Science, Honours, Co-operative Program Faculty Average: 90.88 Computer Science, Honours, Co-operative Program

Academic Standing: Excellent Standing Effective 01/19/2023

Term Honours: Term Distinction

Undergraduate Unofficial Transcript

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Winter 2023

Computer Science, Honours, Co-operative Program

Digital Hardware Specialization

3B Form Of Study: Co-op Work Term Level:

<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
COOP	3	Co-operative Work Term	0.50	0.00	CR
PD	8	Intercultural Skills	0.50	0.00	CR
			<u>In GPA</u>	<u>Earned</u>	
Term GPA		0.00 Term Totals	1.00	0.00	
Cumulative (GPA	89.77 Cumulative Totals	13.00	13.25	
Major Averag	ge:	88.67 Computer Science, Honours, Co-c	perative Program		
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Faculty Average: 90.88 Computer Science, Honours, Co-operative Program

Spring 2023

Computer Science, Honours, Co-operative Program

Digital Hardware Specialization

Form Of Study: Co-op Work Term Level: 3B

Course **Description Attempted Earned Grade** COOP

Co-operative Work Term PD13 Research in the Workplace

Fall 2023

Computer Science, Honours, Co-operative Program Program:

Digital Hardware Specialization

Form Of Study: Enrolment 3B Level:

<u>Course</u>		<u>Description</u>	<u>Attempted</u>	Earned	<u>Grade</u>
CS	348	Introduction to Database Management			
CS	370	Numerical Computation			
CS	456	Computer Networks			
CS	480	Introduction to Machine Learning			
CS	486	Introduction to Artificial Intelligence			
PSYCH	101	Introductory Psychology			

Milestones

Date Completed	<u>Description</u>	<u>Status</u>
12/31/2020	Undergraduate Communication Requirement - Part 1	Completed
08/31/2021	Undergraduate Communication Requirement	Completed
12/31/2021	Work Report 1	Completed
12/31/2021	Work Term 1	Completed
08/31/2022	Work Term 2	Completed
04/30/2023	Work Term 3	Completed

Scholarships and Awards

2021	University of Waterloo President's Scholarship of Distinction
2021	Kenneth D. Fryer Scholarship
2022	Kenneth D. Fryer Scholarship
2023	Kenneth D. Fryer Scholarship
2024	President's International Experience Award
2024	Kenneth D. Frver Scholarship

End of Undergraduate Unofficial Transcript