

**University of Waterloo**  
**Co-operative Work Terms**

**Bingjian Du**  
**20706578**

**2B Electrical Engineering, Honours, Co-operative Program**

<b>Work Term</b>	<b>Employer</b>	<b>Evaluation</b>
Jan - Apr 2019	Henan Zhong Dinglitan Technology Company Limited Divisional Office Zhengzhou Henan China Network Security Engineering	EXCELLENT
Sep - Dec 2019	Ciena Corporation Divisional Office 1 Kanata Ontario Canada Waveserver Product Development	GOOD

**Planned Future Work Term(s)**

Jan - Apr 2021  
Sep - Dec 2021  
Sep - Dec 2022

**Disclaimer:** This evaluation does not constitute an employment endorsement or recommendation. Employer evaluations of student contributions and achievements during the work term are conducted as part of the University of Waterloo's Co-operative (Co-op) Education model. Like academic grades, overall evaluations are part of the assessment of a student's progress in the co-op portion of their degree studies. These assessments are completed using criteria set out by the University, not the employer, and do not reflect the employer's criteria or assessment metrics.

# BINGJIAN DU

## 2B ELECTRICAL ENGINEERING

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### SKILLS

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C++, mySQL, Angular, VHDL/Verilog, Git, MATLAB, RISC-V, python

### SUMMARY

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- Highly self-motivated and confident in solving tough problems.
- Good at teamwork and wish to learn from others.
- Excellent time management skill shown through balancing hobbies and academic studies.

### EDUCATION

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#### University of Waterloo

Fall 2018 - Current

Candidate for Bachelor of Applied Science: Electrical Engineering 2023

Relevant Courses: Digital Circuits (VHDL); Data Structures and Algorithm (C++); Numerical Methods (MATLAB); Embedded Microprocessor System.

2019 Spring Term Dean's Honours List

### EMPLOYMENT

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#### Software Developer, Ciena Corporation, Kanata

Sept. 2019 - Dec. 2019

- Programmed an application called Configuration Builder in Angular. This app extracts information from a .dset ( or .json file) and shows in several tabs. Users can modify any of the values and get an output .dset (or .json) file from the app. The objects are defined based on YANG. This application is tested by pushing the output file to a server using REST.
- Improved the Waveserver CLI by defining several unnecessary function calls when giving a response to a command. The speed is increased by 80%.

#### Network Security Engineer, Zhong Dinglitan Technology Co., Ltd, Henan, China

Jan. 2019 - Apr. 2019

- Completed Cisco Certified Network Associate courses and gained knowledge on internet protocols (IPV4/6, TCP/UDP).
- Built LANs and solved network issues. Installed VMware on servers.
- Assembled new PCs in the office, installed win10 and drivers on them,

### VOLUNTEERING

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#### Research Assistant, Faculty of Engineering

May 2019 - Aug. 2019

- Tested the pull-in voltages of a gas sensor under various conditions.
- Tested a printed circuit board and reported the issue found.
- Operated on electric lab equipment (Oscilloscope, function generator and laser-doppler vibrometer).
- Programmed a micro-plotter (on an Arduino Mega board) in C and reached a precision of 100nm.

### PROJECTS

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#### HDL Bits

Sept. 2019 - Dec. 2019

- Finished all the problems on HDL bits in Verilog.
- Got experiences in designing FSM(PS/2 packet parser, serial receiver), finding errors through simulation results and writing testbenches.
- Developed passive lowpass filter and FFT filter.

#### Digital circuits course

- Programing in Intel (Altera) Quartus-Prime FPGA Software.
- Designing digital circuits in both schematic and VHDL.
- Run functional simulation to verify the circuit.
- Using LogicalStep FPGA and push buttons to confirm simulation.

#### Wechat robot (python)

May 2020 - Current

- Use open source api itchat to interact with Wechat.
- Use Tensorflow to train a RNN model with my own chat history (2000 questions and answers)

#### grantdu.com

- My personal website showing recent course materials.

# UNIVERSITY OF WATERLOO

## UNOFFICIAL GRADE REPORT

Bingjian Du  
20706578

2B Electrical Engineering, Honours, Co-operative Program

### Fall 2020

ECE	224	Embedded Microprocessor Sys
ECE	202	Information Session
ECE	203	Probability Theory&Statistics1
ECE	206	Advanced Calculus 2 (Elec Eng)
ECE	207	Signals and Systems
ECE	231	Semiconductor Phys & Devices
ECE	260	Electromech Energy Conversion
Term Average:		N/A
		Decision:

### Spring 2020

WKRPT	401	Work-term Report	75*
		*Degree Requirement, Not in Avg, Not in Fail Count	
PD	8	Intercultural Skills	CR
Term Average:		N/A	
		Decision:	

### Winter 2020

ECE	109	Materials Chemistry for Eng	96
ECE	201	Information Session	
ECE	204	Numerical Methods	90
ECE	205	Adv Calculus (Elec.&Comp.Eng.)	83
ECE	222	Digital Computers	89
ECE	240	Electronic Circuits 1	74
ECE	250	Algorithms & Data Structures	90
WKRPT	301	Work-term Report	65*
		*Degree Requirement, Not in Avg, Not in Fail Count	
Term Average:		86.18	
		Decision:	Excellent standing

### Fall 2019

PD	21	Eng'g Wrkplace Skills II:	CR
COOP	2	Co-operative Work Term	CR
Term Average:		N/A	
		Decision:	

### Spring 2019

WKRPT	201	Work-term Report	65*
		*Degree Requirement, Not in Avg, Not in Fail Count	
ECE	102	Information Session	
ECE	106	Electricity and Magnetism	73
ECE	108	Discrete Math and Logic 1	94
ECE	124	Digital Circuits and Systems	91
ECE	140	Linear Circuits	90
ECE	192	Eng Economics Impact Society	91
MATH	119	Calculus 2 for Engineering	90
Term Average:		87.91	
		Decision:	Excellent standing

### Winter 2019

PD	20	Eng'g Workplce Skills I:	CR
COOP	1	Co-operative Work Term	CR
Term Average:		N/A	
		Decision:	

### Fall 2018

EMLS	129R	Written Academic English	79
ECE	150	Fundamentals of Programming	80
ECE	190	Eng. Profession & Practice	82
GENE	191	Communication Eng. Profession	84
MATH	115	Linear Algebra (Eng)	87

ECON	101	Intro to Microeconomics	83
Term Average:	82.55	Decision:	Excellent standing

### Winter 2018

BASE	42	Academic Skills	75
BASE	44	Writing Skills	77
BASE	46	Oral Skills	76
ENVS	195	Intro to Environmental Studies	75
MATH	137	Calculus 1 for Honours Math	84
Term Average:	79.5	Decision:	BASE/Progress to next level

### Fall 2017

ECE	105	Classical Mechanics	83
BASE	32	Academic Skills	78
BASE	34	Writing Skills	81
BASE	36	Oral Skills	78
Term Average:	83	Decision:	BASE/Progress to next level