Xingyu (Tom) Wang (he/him) **Computer Engineering Student**

6335 Thunderbird Crescent, Vancouver, BC, V6T2G9

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personal website: https://luckunately.github.io/

TECHNICAL SKILLS

Programming Languages
- Java, Python, C, C++
- System Verilog, Verilog, VHDL
- Bash, Makefile
- Latex, Markdown

Engineering skills
- FPGA, Digital design
- Computer architecture
- Basic Machine Learning
- Linux environment

Programming skills
- Basic algorithm and data structure
- Software construction
- Embedded Programming

EDUCATION

The University of British Columbia **Expected Graduation Aug 2025**
Bachelor of Applied Science - Computer Engineering
Current Cumulative GPA: 4.0/4.33

OTHER WORK EXPERIENCE

UBC, Vancouver, BC **May 2024 – Aug 2024**
- Student Research Assistant

Investigate the applicability of the Learned Relaxed Belady (LRB) machine-learning model for cache and page pre-fetching. Learning memory access patterns, training with various DL/ML models, both at the page level and cache-line level

Under supervision of Prof. Alexandra Fedorova and Shaurya Patel, in Systopia lab.

TECHNICAL PROJECTS

M68k CPU interfacing on FPGA, UBC **Jan 2024 – April 2024**
- CDB managing and module interface with CPU
- Embedding programming with CPU RTOS
- DRAM controller, cache controller, SPI, Canbus, i2c

ECC FPGA performance analysis, UBC **Mar 2024 – April 2024**
- Hamming code and LDPC 64-72 implementation on FPGA in System Verilog
- Performance analysis on gate usage and efficiency

Supervised learning on audio file, UBC **Nov 2023 – Dec 2023**
- Lowering dimensions of the audio file
- Training data to predict signer and genre.
- Comparing different ML algorithms

AWARDS

Dean's Honors List **2021-2024**
NSERC awards **May 2024 – Aug 2024**

THE UNIVERSITY OF BRITISH COLUMBIA

Grades Summary

Student Name: Wang, Xingyu (Tom)
Student Number: 76340348
Date Printed: June 28, 2024

Summer Session 2024

Bachelor of Applied Science (UBC Vancouver) **- Year 2**

Term	Course	Course Title	Grade	Letter	Stdg	Credits	Class Avg	Class Size
1	PHYS 250	Introduction to Modern Physics						
2	CPSC 320	Intermediate Algorithm Design and Analysis						

Winter Session 2023 - 2024

Bachelor of Applied Science (UBC Vancouver) **- Year 2**

Term	Course	Course Title	Grade	Letter	Stdg	Credits	Class Avg	Class Size
1	CPEN 221A	Software Construction I	80	A-		5.0	76	131
1	CPEN 355	Machine Learning with Engineering Applications	90	A+		4.0	92	64
1	CPEN 411	Computer Architecture	92	A+		4.0	82	87
1	MATH 220	Mathematical Proof	83	A-		3.0	61	76
2	CPEN 212	Computing Systems II	78	B+		4.0	66	128
2	CPEN 412	Microcomputer Systems Design	100	A+		4.0	86	93
2	CPSC 221	Basic Algorithms and Data Structures	86	A		4.0	79	174
2	ELEC 433	Error Control Coding for Communications and Computers	95	A+		3.0	87	16
2	MATH 312	Introduction to Number Theory	92	A+		3.0	71	73

Summer Session 2023

Bachelor of Applied Science (UBC Vancouver) **- Year 2**

Term	Course	Course Title	Grade	Letter	Stdg	Credits	Class Avg	Class Size
1	CPEN 311	Digital Systems Design	96	A+		4.0	88	57
1	ELEC 341	Systems and Control	75	B		4.0	76	73
2	BMEG 402	Impact of Biomedical Engineering on Society, Sustainability and Environmental Stewardship	83	A-		3.0	86	49

Winter Session 2022 - 2023

Bachelor of Applied Science (UBC Vancouver) **- Year 2**

Term	Course	Course Title	Grade	Letter	Stdg	Credits	Class Avg	Class Size
1-2	IGEN 230	Introduction to Engineering Design	85	A		6.0	83	61
1	APSC 278	Engineering Materials	91	A+		3.0	76	270
1	APSC 279	Engineering Materials Laboratory	97	A+		1.0	89	15
1	CHBE 241	Material and Energy Balances	94	A+		3.0	72	214

Winter Session 2022 - 2023 continued . . .

Term	Course	Course Title	Grade	Letter	Stdg	Credits	Class Avg	Class Size
1	CPEN 223	Software Design for Engineers	85	A		4.0	73	131
1	ELEC 204	Linear Circuits	97	A+		4.0	93	128
1	ELEC 205	Electronics Laboratory	88	A		1.0	90	17
1	MATH 255	Ordinary Differential Equations	85	A		3.0	64	86
2	CHBE 244	Chemical and Biological Engineering Thermodynamics I	98	A+		3.0	68	212
2	CIVL 215	Fluid Mechanics I	83	A-		4.0	79	198
2	CPEN 312	Digital Systems and Microcomputers	88	A		3.0	81	178
2	IGEN 201	Integrated Technical Communication	85	A		3.0	78	55
2	MECH 260	Introduction to Mechanics of Materials	82	A-		3.0	72	77

Summer Session 2022

Bachelor of Applied Science (UBC Vancouver) **- Year 1**

Term	Course	Course Title	Grade	Letter	Stdg	Credits	Class Avg	Class Size
1	MATH 253	Multivariable Calculus	93	A+		3.0	79	131
1	STAT 251	Elementary Statistics	89	A		3.0	75	203
2	HIST 270A	China in World History	89	A		3.0	76	23

Winter Session 2021 - 2022

Bachelor of Applied Science (UBC Vancouver) **- Year 1**

Term	Course	Course Title	Grade	Letter	Stdg	Credits	Class Avg	Class Size
1	APSC 100	Introduction to Engineering I	76	B+		3.0	78	264
1	APSC 160	Introduction to Computation in Engineering Design	83	A-		3.0	78	319
1	CHEM 154	Chemistry for Engineering	83	A-		3.0	73	206
1	MATH 100	Differential Calculus with Applications	83	A-		3.0	62	94
1	PHYS 157	Introductory Physics for Engineers I	85	A		3.0	77	355
2	APSC 101	Introduction to Engineering II	77	B+		3.0	75	233
2	JAPN 100	Beginning Japanese IA	88	A		3.0	76	27
2	MATH 101	Integral Calculus with Applications	89	A		3.0	69	112
2	PHYS 158	Introductory Physics for Engineers II	79	B+		3.0	63	285
2	PHYS 159	Introductory Physics Laboratory for Engineers	98	A+		1.0	96	50
2	PHYS 170	Mechanics I	96	A+		3.0	77	302
2	WRDS 150B	Writing and Research in the Disciplines	79	B+		3.0	71	23

THE UNIVERSITY OF BRITISH COLUMBIA

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Wang, Xingyu (Tom)	76340348	June 28, 2024	

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