

Jihoon Og

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Edmonton, AB

Education

Edmonton, AB	University of Alberta	Fall 2018 – December 2021 (Expected)
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- B.Sc. Honors in Computing Science – GPA: 3.5.
- **Undergraduate Coursework:** Operating System Concepts, File and Database Systems, Computer Systems and Architecture II, Calculus II, Image Recognition, Software Process and Product Management, GPU Programming, Software Defined Radio, Web Application and Architecture.
- **Dean's Honor Roll:** For the 2018-2019 academic year.

Lethbridge, AB	University of Lethbridge	Fall 2016 – Spring 2018
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- B.Sc. in Computer Science with a minor in Economics - GPA: 3.96.
- **Undergraduate Coursework:** Fundamentals of Programming, Discrete Mathematics, Digital Systems, Linear Algebra I, Computer Architecture, Data Structure and Algorithms, Artificial Intelligence, Music Software Design, Statistics I, Practical Software Development.
- **Dean's Honor Roll:** For the 2016 - 2017 and 2017 - 2018 academic years.

Teaching Experience

Undergraduate Teaching Assistant	University of Alberta	January 2021 – April 2021
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- Created weekly weekly assignments for Introduction to Tangible Computing 2
- Attended lab sessions to help students with course content

Undergraduate Teaching Assistant	University of Alberta	September 2020 – December 2020
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- Created worksheets for Introduction to Tangible Computing 1
- Created mid-term materials for the algorithms and data structures specifically on Huffman trees and coding
- Attended lab sessions to help students with course content

Undergraduate Teaching Assistant	University of Alberta	September 2019 – December 2019
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- Created assignments for Operating Systems Concepts.
- Attended lab sessions to help students with course content.

Work Experience

Assistant Engineer, Intern	Huawei Canada	May 2020 – August 2021
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- Created an automated testing and performance analysis infrastructure to help developers improve compiler performance.
- Performed profiling analysis on AI specific algorithms and improve upon them.
- Performed performance analysis on the benefit of Out-of-Order Commit using gem5 and LLVM to show hardware and software benefits.
- Developed an ML-guided performance prediction model for LLVM IR.

Research Assistant, Summer Student	University of Alberta	May 2019 – August 2019
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- Developed a real-time occupancy flow and recognition algorithm for a low resolution infrared camera.
- Established 2 Linux servers for machine learning, and algorithmic testing for the university's sustainable computing and networking lab.

Research Assistant, Summer Student	University of Lethbridge	May 2018 – August 2018
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- Developed an API written in C++ for a neuromorphic camera using software development techniques to streamline algorithm development and testing.
- Created a comprehensive dataset using the neuromorphic camera to be used by researchers for algorithmic testing and evaluation.

Independent Studies

Undergraduate Student	University of Alberta	September 2019 – January 2020
<ul style="list-style-type: none"> • Explored Software Defined Radio using GNU Radio on the ADALM-PLUTO platform. • Researched real time storage and processing of multiple radio bands on the Ettus X310 SDR platform. 		

Conferences

Canadian Undergraduate Computer Science Conference	University of Calgary	2018
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Skills

Programming Languages

- *(Proficient)*: C/C++, Python, Bash, R
- *(Familiar)*: Java, JavaScript, SQL, Scheme, SQLite, Arduino

Frameworks and Libraries

- *(Proficient)*: Django, Gem5, Pytorch, OpenCV, LLVM
- *(Familiar)*: ROS, Tensorflow

Tools

- *(Proficient)*: GDB, Valgrind, Git
- *(Familiar)*: gprof, gcov

Others

- *(Proficient)*: Linux, Microsoft Office Suite (Word, Excel)

Projects

- Helped develop a peer-to-peer blogging and social networking platform for CMPUT 404 Web Applications and Architecture.
- Allow users to see and connect to other users on a different server.
- Developed using Django for the back-end and React for the front-end.
- Helped develop an election generation system for the University of Alberta Students' Union
- Developed using Django for the back-end and Vue for the front-end.

Awards and Scholarships

- **2020/2021**: Jason Lang Scholarship
- **2019/2020**: Jason Lang Scholarship
- **2018/2019**: Jason Lang Scholarship
- **2017/2018**: Louise McKinney Post-secondary Scholarship
- **2018**: NSERC Undergraduate Student Research Awards

Languages

- *(Native)* English

Leadership and Extracurriculars

Senior Representative	UACS (University of Alberta)	2019 – 2020
<ul style="list-style-type: none"> • Represented the senior student body of Computing Science students through the Undergraduate Association of Computing Science (UACS) 		

- Helped plan events including the Computing Science Graduation Party for newly graduated Computing Science students.
- Assisted in the daily operations of UACS, including but not limited to: food restocking, office cleaning, and weekly meetings.

Volunteer

HackED

2019, 2020

- Helped setup for the 24-hour event, moving and checking equipments, and helped with registrations.
- Assisted teams with debugging code, providing directions to events, and transporting foods and drinks throughout the event.

Competitor

Programming Competitions

2017

- **2017 Rocky Mountain Regional ACM ICPC:** Placed 31st out of 52.
- **2017 Alberta Collegiate Programming Contest:** Placed 28th out of 53.
- **2017 Lethbridge Collegiate Programming Contest:** Place 4th in Division 2.