

Jihoon Og

(403) 393-7144
jihoonog@gmail.com
Edmonton, AB

Education

Edmonton, AB	University of Alberta	Fall 2018 – December 2021 (Expected)
---------------------	------------------------------	---

- 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
-----------------------	---------------------------------	--------------------------------

- 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
---	------------------------------	----------------------------------

- 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
---	------------------------------	---------------------------------------

- 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
---	------------------------------	---------------------------------------

- 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
-----------------------------------	----------------------	-------------------------------

- 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
---	------------------------------	-------------------------------

- 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
---	---------------------------------	-------------------------------

- 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
---	------------------------------	-------------

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

CMPUT-404 Software Project	2021
<ul style="list-style-type: none"> • 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. 	
CMPUT-401 Software Project	2020
<ul style="list-style-type: none"> • 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**

- 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.