Jihoon Og

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Edmonton, AB

Education

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

- B.Sc. Honors in Computing Science – GPA: 3.4.
- **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**

- 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**

- Helped develope 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**

- Helped develope 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
- **2016:** Alexander Rutherford Scholarship

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.