

TAYLOR ZOWTUK

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[Personal Website](#) · [GitHub](#) · [LinkedIn](#)

EDUCATION

SEPTEMBER 2018 – CURRENT (APRIL 2021 GRADUATION)

BSc Computing Science Specialization in Software Practice, UNIVERSITY OF ALBERTA

- Relevant coursework: Algorithms I & II, Intro to Software Engineering, Systems Analysis & Design, File & Database Management, Operating Systems, Computer Organization & Architecture I
- Dean's Honor Roll, 2018/19
- Jason Lang Scholarship, 2019
- Cumulative GPA of 3.9/4.0

SEPTEMBER 2013 – APRIL 2018 (COMPLETED)

BSc General Biological Sciences Major, UNIVERSITY OF ALBERTA

- Dean's Honor Roll, 2015/16; 2017/18
- Jason Lang Scholarship, 2016; 2018
- University of Alberta Academic Excellence Scholarship, 2013
- Alexander Rutherford Scholarship, 2013
- Developed strong organizational skills and work habits to improve GPA year over year; final year GPA of 3.8/4.0

EXTRACURRICULAR EXPERIENCE

DECEMBER 2018 - CURRENT

Controls Team Lead, UA BIOMEDICAL TECHNOLOGIES DEVELOPMENT GROUP

- Building an embedded control system for [ALEX](#) - an exoskeleton which will reduce the risk of high-load and repetitive strain injuries in the workplace
- Researched, requirements gathered, designed, and implemented early prototypes as well as iterated on designs and overcame roadblocks (Arduino, Raspberry Pi, & ODrive)
- Established the software development stack (C++, Makefile, Python, & ROS)
- Developed motor calibration and PID control while creating extensive documentation
- Scheduled weekly tasks for, and mentored, an interdisciplinary team
- Coordinated with controls, biomechanical, and project leads to plan future work, ensure progress is continuing to schedule, and maintain the vision of the project

JANUARY 2019

Level Up Hackathon, UNIVERSITY OF ALBERTA

- Deployed a full stack, [interactive map](#) web application, in a highly restricted time frame
- Configured and deployed a Cybera cloud virtual server running an Apache web server
- Used Python, Django, and SQLite for backend, with React for front end interface

WORK EXPERIENCE

MAY – AUGUST 2019

Research Assistant, UNIVERSITY OF ALBERTA

- Converted an open-source MIPS assembly [graphics library](#) to RISC-V assembly and expanded it with more: primitives, tests, and detailed documentation
- Harnessed strong computer science fundamentals to implement [Unicode UTF-8 support](#) for an open-source RISC-V simulator while working with an unfamiliar language (Java)
- Debugged large existing software - numerous files & tens of thousands of lines of code
- Developed hardware designs in Vivado for implementing a softcore on a Xilinx FPGA
- Reviewed peers code and offered bugfixes and suggestions for improving algorithm design, coding practices, and documenting
- Summarized and presented current research in literature reviews with graduate and undergraduate peers

MAY – AUGUST 2014 – 2018

Cylinder Handler, PRAXAIR INC.

- Spearheaded the teams of summer students by familiarizing new team members with company practices and policies and efficiently allocated tasks to meet daily goals
- Reorganized and deployed new storage and workflow systems that allowed shift work to be completed on average 2 hours earlier a day and increased production (decline in monthly product shortages)
- Coordinated with multiple teams (shipping, production, lab, QA, and management) to complete various projects in a manner consistent with business objectives

VOLUNTEER EXPERIENCE

JANUARY – APRIL 2018

Student Accessibility Services Note Taker, UNIVERSITY OF ALBERTA

- Took clear and organized lecture notes for students who have disabilities or medical conditions that interfere with their ability to take their own notes
- Never missed taking notes for a lecture over the course of the entire semester and always made notes available on time

SKILLS

TECHNICAL

- Proficient: Python, C, Java, SQLite, MIPS & RISC-V assembly, Git & GitHub, Windows & Linux
- Familiar: C++, Django, JavaScript, HTML, React, Makefile, Vivado, ROS

HARD SKILLS

- Well developed: Debugging, Systems Design, Iterating on Designs, Documenting

SOFT SKILLS

- Well developed: Leadership, Communication, Time Management, Organization

Use the link to my personal website for access to my public portfolio.