

# 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, Operations Management
- 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, designed, and implemented early hardware prototypes including requirements gathering and circuit planning (Arduino & ODrive)
- Established the software development stack (C++ & Makefile), created extensive documentation, developed motor calibration functions, and developed PID control
- Scheduled weekly tasks for, and mentored, an interfaculty 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 & C++, Java, SQLite, MIPS & RISC-V assembly, Git & GitHub, Windows & Linux
- Familiar: Django, JavaScript, HTML, React, Makefile, Vivado

### HARD SKILLS

- Well developed: Debugging, Code Reusability, Systems Design, Documenting

### SOFT SKILLS

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

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