

## WORK EXPERIENCE

### Information Technology Intern

*Industrial Light & Magic (Lucasfilm), Vancouver, BC*      **05/2023 – 09/2023**

- Provided IT and Client Services support, including hardware/software for desktop, network, server, and media systems; resolved 200+ tickets with timely resolution to ensure efficient studio operations
- Revamped an internal tool for remote machine management, improving its functionality across ILM studios globally

## PROJECTS

### Legacy of North

*Personal Project, Burnaby North Secondary*      **2020 – Present**

- Captured 360° photography of 300+ locations to preserve the school's history before demolition of the old buildings
- Developing a showcase website using HTML/CSS/jQuery and other libraries in a Google Street View style

### MC68K Microcomputer Design

*Microcomp. Sys., The University of British Columbia*      **01/2025 – 04/2025**

- Implemented core CPU subsystem hardware on an FPGA using Verilog and Quartus: SRAM, DRAM, SPI, PLRU cache, I2C and CAN bus
- Programmed embedded C test routines to validate memory modules (Flash, EEPROM), communication protocols, cache behavior and RTOS functionality

### Power-Efficient Adder Circuit

*VLSI Systems, The University of British Columbia*      **11/2024**

- Designed a static CMOS 8-bit adder in Cadence, reducing power consumption via optimized digital logic, transistor sizing and voltage management
- Simulated the design in ADE Explorer, varying parameters to analyze static, dynamic and peak power consumption

### FPV Drones

*Personal Project*      **2017 – 2024**

- Assembled custom drones using power distribution boards, flight controllers, electronic speed controllers and control/video TX/RX (2.4/5.8 GHz)
- Learned about LiPo battery charging systems, specification ratings and cells

### Automated Robotic Sorting Arm

*Design Studio, The University of British Columbia*      **03/2023 – 04/2023**

- Developed a robotic arm utilizing Python computer vision machine learning to classify and sort electronic components
- Custom-designed 3D-printed parts and assembled the electronics: electromagnet, servo motors, microcontroller and battery power system

## EDUCATION

### BASc, Computer Engineering

*The University of British Columbia*  
*Expected 05/2027*

## SKILLS

### Programming

- Verilog/SystemVerilog RTL
- C/C++
- ARM64 Assembly
- Python (Scripting)
- Java (& Android)
- HTML/CSS/JavaScript

### Hardware

- FPGA (Computer Architecture)
- Microcontroller/Embedded (Arduino/Raspberry Pi)
- Electronic/Circuit Design
- Multimeter/Oscilloscope
- Soldering
- 3D Printing
- Drones

### Software Tools

- Quartus Prime
- ModelSim
- UNIX/LINUX
- Cadence Virtuoso
- LTspice/KiCad
- GitHub (VCS)
- JetBrains IDEs
- SolidWorks/Inventor (CAD)

## OTHER

### LinkedIn

- [linkedin.com/in/wesrchow](https://www.linkedin.com/in/wesrchow)

### Hardware, Software & Media

- [instagram.com/westechacc\\_](https://www.instagram.com/westechacc_)
- [youtube.com/@Wgesh8](https://www.youtube.com/@Wgesh8)