

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

Hardware, Software & Media

- instagram.com/westechacc_
- youtube.com/@Wgesh8