

# JALEN CHENG

COMPUTER ENGINEER // [LINKEDIN](#) // [GITHUB](#)

## CONTACT

613-600-2893

j54cheng@uwaterloo.ca

## WORK EXPERIENCE

### Hardware Technician

August 2018 - September 2024

Self-Employed

- Rigorously researched, planned and built 10+ computer systems and peripherals
- Modelled and performed various hardware modifications to meet specific product demands
- Gained and applied hands-on skills including soldering, wiring, and hardware assembly
- Performed technical analysis to ensure seamless operation and integration of components

### Hockey Referee

September 2022 - December 2023

District B Officials Association

- Ensured players' adherence to hockey rules and regulations during games, maintaining decorum
- Facilitated conflict resolution, demonstrating effective decision-making and problem-solving skills
- Communicated with coaches, players, and 2 other officials to promote a cooperative environment
- Enforced split-second decisions under high-pressure situations, requiring precision and accuracy

## EDUCATION

### University of Waterloo

2024-2029

Student BASc, Comp. Engineering

- President's scholarship of distinction, 2024

## PROJECTS

EasyASL - HackTheValley Winner

- Flexible webapp to learn, certify and translate ASL with AI

IFDAA - ECE 198 Personal Project

- Fall alert system developed with STM32 MCs in C++

## SKILLS

### Technical Skills

- C++, TypeScript, HTML, React, Git
- Windows OS, Google Suite, Office
- Soldering, Circuitry, Assembly
- English, Mandarin, French

## ACHIEVEMENTS

- University of Waterloo Engineering Society Representative
- Finalist for Kiwanis Club's Rick Barrigar Scholarship
- NCSSAA Junior Badminton Mixed doubles Champion
- 4x Honour Roll, 2x Silver medal recipient at Colonel By SS
- Varsity Badminton, Volleyball at Colonel By SS
- DELF B2 Certificate

## VOLUNTEER EXPERIENCE

### Research Assistant

December 2023 - March 2024

Collingwood General and Marine Hospital

- Co-authored a research paper developing deep-learning algorithms for analyzing wrist x-rays
- Trained model to recognize fractures or acute injuries with 1000+ self-labelled datasets
- Gained knowledge and interest in machine learning and artificial intelligence from industry leaders
- Coordinated communication between professor at the University of Illinois and physicians at Collingwood General Marine Hospital, bridging the gap of knowledge between fields.

### Youth STEM Educator and Coordinator

October 2022 - September 2023

Let's Talk Science

- Designed and delivered engaging hands-on youth STEM activities, enhancing understanding
- Selected as one of two members to educate underprivileged youth in Nemaska about STEM
- Assumed a leadership role, coordinating youth programs with teachers and educating children
- Took on multiple critical roles with short notice, exhibiting initiative and flexibility

### Administrative Coordinator

September 2022 - April 2023

Rideau Students' Union

- Managed administrative tasks for the Students' Union, ensuring smooth and efficient operations
- Coordinated and organized 30+ union meetings and events, fostering an engaged student body
- Oversaw software for voting, fundraising and communication within the union
- Aided in outreach efforts, recruiting dozens of new affiliates and acquiring strategic partnerships

### VP Outreach

March 2020 - August 2020

Frontline First

- Directed outreach efforts, gaining support and raising over \$10,000 in PPE for frontline workers
- Received sponsorships from multinational corporations like Clif, Garnier, Starbucks and more
- Acquired additional funding valued at \$140,000 for additional vulnerable communities
- Built strong relationships with donors, community leaders and other nonprofit organizations

### Math Tutor

September 2018 - December 2023

Colonel By Secondary School / Auxillium Mentoring

- Conducted personalized mentorship for students from grades 2-11, enhancing understanding
- Communicated mathematical concepts and methods, improving academic performance
- Assessed student progress, providing feedback and adapting teaching strategies individually
- Developed connections with each mentee, encouraging good habits and increasing engagement