

# Davis Cheung

CANADIAN CITIZEN

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## 📖 EDUCATION B.Eng. Computer Engineering | 2020 - 2025 (expected)

Toronto Metropolitan University (Prev. Ryerson University) GPA: 4.1 / 4.3

## <> TECHNICAL SKILLS Programming & HDL: Ruby, Perl, Python, C/C++, SystemC, Java, Verilog, SystemVerilog

Hardware Verification: VCS, Verdi, nWave, **Universal Verification Methodology (UVM)**

Webdev: Node.js/Express.js, Django, Flask, PHP, MySQL, Redis, HTML, CSS, JavaScript, Bootstrap

Other: **Linux/UNIX**-based OS's, VIM, **Git**, **GitHub**, Perforce, **JIRA**, JAMA, SolidWorks, OpenCV, object-oriented programming (OOP), **Regex**

## 📁 EXPERIENCE

### 2023 - 2024 RAS SOC Design Verification (Intern) / AMD (Markham, ON)

- Wrote **UVM** components, **testbench** checkers, and testcases for verifying chiplet ECC feature functionality at the **SOC**-level (pre-silicon chiplet verification)
- Wrote testbench automation scripts for automatically generating testbench code off YAML key-value pairs (**Perl**, **Ruby**)
- Debugged **AXI communication** flows and brought-up cross-die communication for homogeneous chiplet configurations using **Verdi**
- Engaged with integration teams, IP teams, and architects to resolve connectivity issues, **RTL** bugs, and clarify specification details during **integration** and **bring-up**
- Worked with the infrastructure team to overhaul outdated regression testing tools for the new project cycle and beyond
- Developed text-parsing scripts (**Python**, **Perl**, **Ruby**) for use by verification and integration teams to verify chiplet connectivity and check for logical errors
- Worked on the **Instinct** (MI) product line as part of Graphics and Engineering

### 2022 Software Prototyper / SDZ (Startup Incubator; Toronto ON)

- Worked closely with startup founders to design and test new and existing web-based software prototypes (browser game, social media platform)
- Worked development front-end and back-end elements of Bootstrap/Django(**Python**)/MySQL and React/Express.js(Node.js)/PostgreSQL stacks
- Overhauled back-end web models to leverage **object-oriented** model-template-views (MTVs)
- Wrote a **Python-based** web crawler and web scraper that could automatically fire search queries and scan pages for keywords, parsing relevant data as needed across several sites

## ☆ VOLUNTEERING

### 2017-2019 Interact Club Executive / Rotary Club of Scarborough

- Volunteer supervisor for the 2017-2019 Scarborough Ribfest Events
- Hosted a broad set of community events and initiatives
  - Easter egg hunt events, milk bag mattresses
  - Room renovation and painting for government-subsidized housing
  - Food drives, clothing drives, and sports equipment drives

## ☆ ACADEMIC PROJECTS

### **GrabCutWeb.xyz** / HTML, JS (jQuery), Python (Flask, OpenCV)

Created a web app that uses the GrabCut algorithm from OpenCV to remove objects from the foreground of images. Used 6 different API's and learned about web development and digital image manipulation in the process.

### **Autonomous Rover Navigation** / C/C++ (ROS); Queen's Space Engineering Team

Led a 5-person team to design and program an autonomous driving heuristic to navigate a simulated rover through an obstacle course, simulated on Robot Operating System (ROS) and Gazebo in Ubuntu Linux.

## ☆ PERSONAL PROJECTS

### **Tech Support and PC Building for Family & Friends** / N/A

- Built 10+ PC's for family and friends with help from Excel spreadsheets and sites like Newegg and PCPartPicker to perform price comparisons
- Full PC operating system setups + driver
- Data recovery and disk reimaging through DMDE (DM Disk Editor)

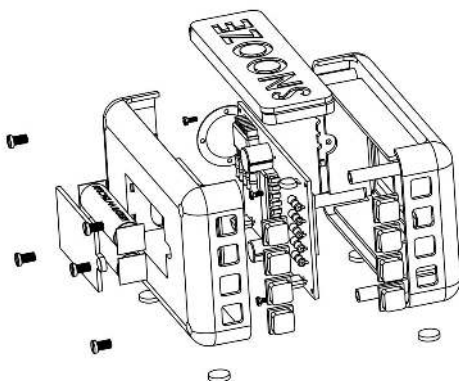
### 📍 HOBBIES & ACCOMPLISHMENTS

- Photography + Film (Nikon, Canon)
- Personal Fitness (~3 years)
  - 8-minute mile (running)
  - 70 + 70lb dumbbell inclined bench
- Gaming (MOBA's, FPS's, and RPG's)
- Movies (love Sorkin's writing and anything by Fincher)

### 📍 AWARDS

- **Dean's List**, 2019-2024
- Gordon and Agnes Brash Award (Scholarship)
- Queen's Excellence Scholarship, 2019

## 📦 COOL STUFF I'VE DONE



SolidWorks Alarm Clock Shell



Queen's Sci' 23 patch design submission



Grey Heron (Japan, 2018; shot on Tamron 240mm w/ x2 extender)