Dominic Li

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EDUCATION

Queen's University | Smith Engineering — Kingston, ON
3rd year Mechanical (B.A.Sc.) — Expected Apr 2026

- Cumulative GPA: 3.32
- Laboratory experience: Material Properties, Welding, CNC Machining, Control Systems and Circuits, Fluid analysis.
- Courses completed: Thermodynamics, Solid mechanics, Fluid dynamics, Mechatronics, Numerical Computation.

WORK EXPERIENCE

City of Toronto | Revenue services — North York, ON
Bailiff clerk, summer student — May 2024 – Sep 2024

- Performed receptionist duties such as managing inboxes, redirecting phone calls, processing cheques and physical mail.
- Responsible for filing warrants on properties with outstandings as well as revising figures with bailiffs and clients.
- Worked extensively with Excel by bookkeeping incoming payments, credits, and balances of accounts.
- Used Excel VBA to optimize time consuming and labor-intensive monthly tasks assigned to the unit. The project I worked on efficiently sorted and filtered overdue utilities spreadsheets with over 200,000 accounts.

The Granite Club | Camp Granite — Toronto, ON
Department coordinator — Jun 2022 – Sep 2023

- Head coordinator for the tech department of Camp Granite. Planned out and conducted lesson plans and activities.
- Instructed the fundamentals of computational logic and programming using Scratch to children aged 8 to 12.
- Demonstrated effective leadership by putting together a team of counsellors that fostered an engaging and effective learning environment.

McMinten Radiant Insulation — Greater Toronto Area, ON
General Laborer — Jun 2022 – Sep 2023

- Installed insulation panels and heated piping to basements floor of homes, working shifts of up to 12 Hours.
- Work experience with power tools such as drills, handheld jacks, table saws, and angle grinders.
- Acquired the understandings of safety around power tools and hazardous workplaces.

ACTIVE DESIGN PROJECTS

Queens Baja SAE Team
Powertrain subsystems | Gearbox — Sep 2022 – Present

- Designed and manufactured the gearbox of our 2024 competition vehicles using CNC milling and lathing.
- Technical and high-loading component requiring top standards of tolerances (± 0.001in), performance and reliability.
- Analyzed and reiterated on previous year designs using ANSYs then implementing changes with physical data collected.
- Increased gear reduction ratio from 5.5 to 6.7 compared to 2023's design.

RC Buggy | ***RipMaster M0***
Personal Project — Sep 2024 – Present

- Complete original design built from scratch using Fusion 360 and SolidWorks' built-in simulation tools.
- Minimal components were outsourced, mostly electronics, suspensions and fasteners are off the shelf. All load and torque bearing components such as gears and axels were 3D printed using PETG and PLA.
- Design features include active front and rear suspensions, generative topology which optimizes mass to strain ratio of parts, custom ESC (Electronic Speed Control) built using an ESP32 microcontroller.

PERSONAL SUMMARY

Languages: C/C++/Arduino, MATLAB, Python/Jupyter Notebook, Microsoft VBA.
proficiency: Fluent in English and Cantonese, proficient in Mandarin.
Software and tools: SolidWorks, Fusion360, ANSYS, Mastercam, Microsoft office, McMaster Carr.
Knowledge: FDM & DLP 3D printing, CNC machining, welding, circuits/soldering, power tools.
Certifications: Machine shop certified, first aid certified via NCPRF, Food Safety via SafeCheck.