

Elliot Tomlinson

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Summary

Engineering Physics III and Environmental Science

Creative and communicative natural leader aspiring to work on challenging open-ended problems in teams of high functioning people aligned without ego. Background in full-stack design projects and physics simulation. Lifelong passion for creativity, invention, and sustainability.

Education

McMaster University 2016 – Present, Class of 2022

B. Eng, Engineering Physics (Systems Design Focus), B. Sc. Environmental Science.

Projects

Self-Stabilizing Quadcopter 2021 – Ongoing

Embedded C, CAD, and construction of a drone. Microcontroller PID and Bluetooth control.

Laser Safety Goggles 2020

Novel, low cost, ANSI-Compliant, completely broadband eye protection for lasers to Class 4.

Handheld Plant Health Monitor 2019 – 2020

Design, project management, CAD, assembly, and processing in C for a photonics group.

Recycled Material Solar Panel Enhancement 2019 – 2020

Novel design project through a semiconductor lab. Systems modelling with RSoft/Zemax.

Hardware Ultrasonic Rangefinder 2019

Design, build, and Multisim simulation of sub-cm resolution device with no software.

Program-Related Design Projects 2017 – Ongoing

Design, Java simulation, and launch of multi-stage rocket to 1 km, 3D printed gripping hand with geartrain in Autodesk, Numerical Analysis with MATLAB, FEA with FlexPDE.

Repair Projects 2017 – Ongoing

Restoration and re-sale of miscellaneous computer hardware, design and construction of I.O.T. systems, A/V equipment, and winning battlebot designs all from e-waste salvage.

Original Tabletop Game Design and Art 2019 – Ongoing

Ruby and Lua Scripting, Unity asset design, art for 300+ cards.

Employment

Town of Oakville, Self 2010 – Ongoing

Training lifeguards, teaching swimming, and providing supervision to private events.

Volunteering

McMaster University 2017 – Ongoing

Providing social and academic support as a tutor, mentor, and frosh-week leader. Increased turnout from tens to over 200 as Executive/MC/Marketing Lead for a multi-thousand dollar student engagement weekend. Student liaison and event planning as a faculty representative.

Skills

Technical

Full-stack design, prototyping, and testing. C, Microcontrollers, MATLAB, Ruby, Python, Microsoft Office Suite, GNU/Linux, L^AT_EX, Graphic Design, Autodesk 3D Modelling.

Personal

Effectuation, intrinsic motivation, trans-disciplinarity, creativity, collaboration, leadership.