JULIAN AWAD

(613)-806-2681 ⋄ julian.awad@queensu.ca

TECHNICAL SKILLS

Software	Microsoft Access, Microsoft Excel, Database Administration
Design and Manufacturing	SolidWorks, FDM 3D Printing, DFM, DFA
Programming	Python, C, MATLAB, LaTeX, HTML & CSS
Networking	TCP/UDP Protocols, Network Config, Linux/Unix, FTP
Languages	English, French, Spanish

PROJECTS

Co-Founder, PolyTwist Designs November 2015 - Present
www.polytwist.xyz

- Co-founded a small business designing and manufacturing twisty puzzles using 3D Printing and SolidWorks
- Featured at events such as World MakerFaire 2017 and Maker Festival promoting the Maker movement
- Worked with a manufacturer to mass-produce a product, from the design stages to manufacturing through injection molding and packaging design
- Responsible for the in-house production line from start to finish, product design, website development and upkeep, and sales through our online shop and in-person events.

Hyperloop Model Design September 2019 - December 2019

- Designed, built, wired and programmed a 1:36 scale prototype of a hyperloop vehicle powered by an Arduino and DC Motor
- Created multiple mathematical models to describe the vehicle's behaviour, including chassis stress, energy loss, and total power consumption
- Optimized energy consumption by minimizing drag and bearing friction, resulting in an 89% energy efficiency
- Wrote a detailed feasibility analysis of a Hyperloop route between Windsor and Quebec City, taking into account social, economic, environmental and legal implications of Hyperloop transportation

EXTRACURRICULARS

First Year Project Coordinator September 2019 - May 2020
Queen's Engineering Society

- Working with Engineering Tutoring Service (EngLinks) to establish an efficient Tutor Feedback solution
- Increased Feedback response rate by implementing a more efficient mailing system
- Helped organise workshop sign-ins and overall setup and take-down

Mars Rover Mechanical Team Member September 2019 - December 2019
Queen's Space Engineering Team

- Researched and analysed potential material options for a 3D Printed airless tire and modular hub, increasing performance in a variety of conditions while reducing overall weight

EDUCATION

Queen's University 2019 - 2023 (Projected)

- Candidate for Bachelor's in Engineering Physics, Mechanical Stream
- Dean's List with Honours (GPA of 3.75)