Hussein Elguindi

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EDUCATION

UNIVERSITY OF WATERLOO	Sep. 2022 – Apr. 2027 (expected)
Candidate for Bachelor of Software Engineering, Honours (Co-op)	Waterloo, Ontario

- Colonel Hugh Beasley Engineering Scholarship ($10,000)

SKILLS

LANGUAGES	Golang, Python, JavaScript, SQL, C/C++
TOOLS/LIBRARIES	Git, Docker, LaTeX, Vim/Neovim, Linux, Node.js, WebRTC, Electron, Svelte, p5.js, Arduino
INTERESTS	P2P networks, multithreadeding, concurrency, privacy & security, Internet of Things (IoT)

EXPERIENCE

INDEPENDENT CODING SUMMER CAMP	May 2021 – Jul. 2021
Founder – Instructor	Oakville, Ontario

- Took initiative to launch a free virtual summer camp for youth during the Covid-19 pandemic lockdown to utilize their newly found spare time.
- Created and taught weekly beginner-intermediate Python lessons through Google Meet to ~10 students.
- Designed advertising material and campaigned on social media groups; managed communication with parents.

SAAS SOCIAL MEDIA AUTOMATION SOLUTION	Feb. 2019 – Jan. 2022
Founder – Full Stack Software Developer	Oakville, Ontario

- Founded a SaaS (software as a service) business to deliver and sell solutions for various Discord/Slack groups.
- Saved clients 7+ hours per week by automating a repetitive daily task of posting to social media from a channel by coupling Twitter's posting API and Discord's/Slack's bot API.
- Containerized software using Docker and setup deployment on an Ubuntu Linux server through DigitalOcean Droplets.

MY (MISSISSAUGA) CODE CLUB	Dec. 2019 – Feb. 2021
Python & Robotics Programming Instructor	Mississauga, Ontario

- Prepared a Python-based curriculum and fitting material to instruct classes of ~15 students.
- Taught foundational programming concepts: conditional logic, loops, and the development of elementary algorithms.

PROJECTS

DROPNOW – PEER-TO-PEER DATA SHARING SERVICE ⦿	2022
Creator – Sole Contributor	Golang, Svelte, TypeScript, WebRTC, Docker

- A free and open source, web-based service providing a solution for fast and secure cross-platform data sharing.
- Eliminated the need share files across devices through email or social media, avoiding quality deterioration from lossy compression and any data collection (due to P2P design).

MULTITHREADED/CHUNKED DOWNLOADER ⦿	2022
Creator – Sole Contributor	Golang

- CLI tool to download data by splitting the content into individually fetched chunks for faster, resumable downloads.
- Utilized Golang's goroutines and channels for concurrent HTTP requests, yet atomic write operations.

EVOLUTIONARY FITNESS NATURAL SELECTION SIMULATION ⦿	2021
Creator – Sole Contributor	p5.js, JavaScript, HTML, CSS

- A web-based evolutionary learning algorithm, simulating Darwin's theory of natural selection, using the p5.js drawing library and pure HTML, CSS, and JavaScript.
- Presented the project to my teacher then classmates as a visual learning aid for a biology unit.

ACHIEVEMENTS

University of Waterloo PD: Introduction to C++ Programming (certificate of course completion)	Sep. 2021
HarvardX CS50: Introduction to Computer Science (certificate of course completion)	Aug. 2020
Waterloo Canadian Computing Competition (top 25% of contestants)	Feb. 2020