# Ian Langleben

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## PROFESSIONAL EXPERIENCE

**Wix web designer,** *Jewish Community Mental Health Shabbat*                    Feb 2021 – Present
[mentalhealth.tbdj.org ↗]

- Designed a modern, mobile-friendly **Wix** website for a weekend of mental health awareness
- Used Wix's Datasets feature to ensure **ease of modification and maintenance** after my contract

**Wordpress web designer,** *PILS McGill*                    Aug 2020 – Jan 2021
[pils.sus.mcgill.ca ↗]

- Designed and created a website for PILS, McGill's pharmacology undergraduate society
- Created and managed a **Wordpress** installation; wrote and managed plugins in **PHP**

**Fullstack web developer,** *CHIME Experiment*                    May 2020 – Aug 2020

- Wrote frontend (**React/Typescript**) and backend (**Go**) plugins for **Grafana**, a cloud metrics system
- Redesigned the group's public website (chime-experiment.ca ↗) with a **Gulp.js** build pipeline

## PROJECTS

**EMGeyboard,** *with McGill NeuroTech 2020*                    Jan 2020 – Dec 2020
[**DOI**: 10.1109/SMC42975.2020.9283117 ↗]

- Helped build an armband capable of identifying finger motion using **EMG** and haptic feedback
- With the dashboard team, designed a **React** app for collecting data and testing ML models, and a hybrid **Python/Flask**-**Node.js** backend
- Assisted with the **recruitment and application process** for members of the incoming team

**SFVentilator,** *Agorize Code Life Ventilator Challenge*                    Mar 2020
*A low-cost, open-source ventilator.* [github.com/ilangleben19/SFVentilator ↗]

- Built in 3 weeks with a team of 20 for ICU use during the COVID-19 pandemic
- Designed and implemented the **React**-based UI, which ran as a **Linux service** on a **Raspberry Pi**
- Handled **serial comms** between an **Arduino** and the **Pi** with a **Node.js/Express** server

**The Fifth Sense,** *Partner: Liana Martins-Medina*                    Aug 2018 – May 2019
*Award-winning project presented at the 2019 Intel International Science and Engineering Fair.*

- An aid device for visually impaired people. Users visualize their surroundings through surround sound. Uses a data pipeline which projects optical images of a user's surroundings into surround sound in real-time. Helps prevent head-level injuries that occur despite use of a white cane
- Hosted on a trio of **Raspberry Pi's** communicating over an **ad-hoc Wi-Fi network**
- Pipeline written in **Python** - communication handled by **Flask** servers; computer vision in **OpenCV**

## EXTRA-CURRICULAR ACTIVITIES

**Med-1 Representative,** *McGill CSTAR*                    Oct 2020 – present
CSTAR (*Clinical Skills Training and Assessment Room*) is a McGill Medicine club.

- **Organize the logistics** of monthly clinical skills workshops for students in my class
- Promote the workshops on **social media** and via internal publications

### Med-1 Representative, *McGill MDJA* <span style="float:right">Oct 2020 – present</span>

MDJA (*Medicine and Dentistry Jewish Association*) is a McGill Medicine club.

- Plan educational and cultural events tying Judaism and Jewish life into medical education
- Promote these events to both Jewish and non-Jewish medical and dental students in my year

### Medical student researcher, *MNI NeuroSim group* <span style="float:right">Sep 2020 – present</span>

- Assist an MSc student with the **logistics and data collection** of a trial focusing on the effectiveness of VR neurosurgery simulations in training prospective surgeons
- Wrote a detailed **protocol** for the trial
- Trusted to **run the trial** for participants when the MSc student is unavailable
- Enhance the group's **Wordpress** site (neurosim.mcgill.ca ⧉ ) with custom **PHP/HTML/CSS** plugins

### First Aider, *St. John Ambulance* <span style="float:right">Feb 2019 – present</span>

- Volunteer at events such as hockey games, fundraisers, and concerts as a first aider
- Attend monthly CPD workshops on first aid situations
- Trained in crisis management, communication, and teamwork

### VP Technology, *MDSA Fashion Show for ANEB* <span style="float:right">Nov 2019 – May 2020</span>

*A fundraiser fashion show run for Anorexie et Bulimie Quebec by McGill's Medical-Dental Students' Association.*

- Handled **social media, communication and registration** for the 2020 edition of the show
- Personally **organized a secondary fundraiser** for 80 at a board games bar venue

### President, *Hillel, Dawson Chapter* <span style="float:right">Aug 2018 – May 2019</span>

- **Oversaw a team** of 12 responsible for the promotion of Jewish life and presence on campus
- **Organized events** for Jewish holidays and charitable causes.

### Organizer of MariHacks, *the first CEGEP-level hackathon* <span style="float:right">Jun 2018 – Mar 2019</span>

- Responsible for technology and content
- **Recruited** educators and mentors via personal networks and LinkedIn
- **Communicated** with them regularly in a professional manner

## ACHIEVEMENTS AND AWARDS

### Intel International Science and Engineering Fair <span style="float:right">May 2019</span>

For *The Fifth Sense*

- Oracle Academy Award for Outstanding Project in the Systems Software Category
- Second Award in the Physical Sciences: Systems Software Category
- GoDaddy Joining Forces for the Community Award

### Montreal Regional Science and Technology Fair <span style="float:right">Mar 2019</span>

For *The Fifth Sense*

- Gold Medal (Senior 2 category)
- Super expo-sciences Hydro Québec Experimentation & Design Award
- Concordia School of Engineering and Computer Science Innovation Scholarship
- Intel Excellence in Computer Science Award
- McGill University - School of Computer Science (Non Robotics) Award
- McGill Faculty of Engineering Award

### Lieutenant Governor of Quebec's Youth Medal <span style="float:right">May 2017</span>

Awarded for academic achievement and for outstanding personal and social involvement.

## PUBLICATIONS

### A 3D-Printed, Adjustable Armband for Electromyography-Based Finger Movement Classification With Haptic Feedback, *IEEE (Dec. 2020)*

See *EMGeyboard* under *Projects* above. DOI: 10.1109/SMC42975.2020.9283117 ⧉