

HACKATON 2020

Microsoft x BrainStation



Derek

Web Developer



Jason

Web Developer



Reza

Data Scientist



Bernice

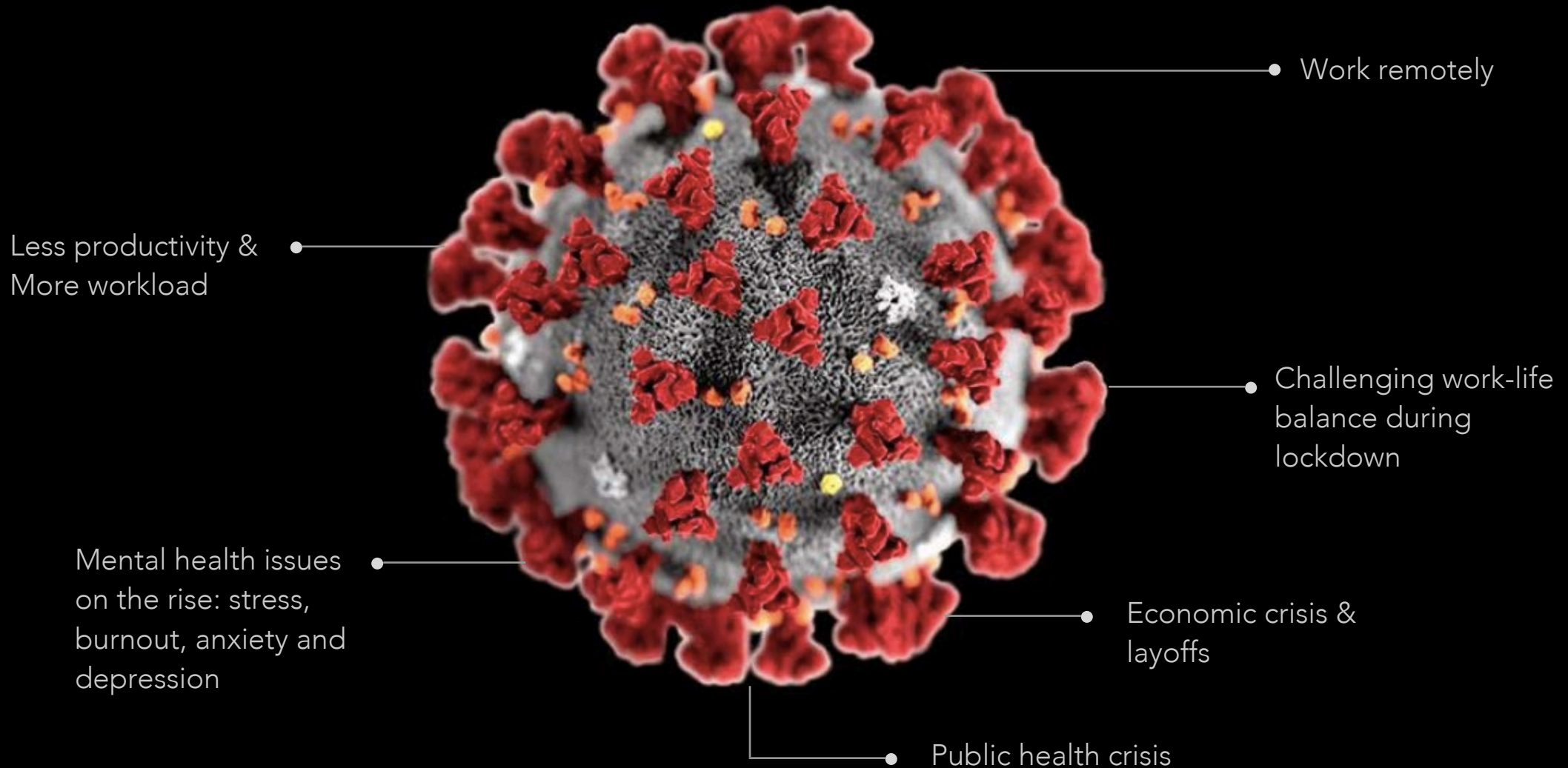
Data Scientist



Neimat

UX designer

Context





Problem Space

Loneliness

Technology affords us the ability to connect but denies us the essential social contact we need as humans.

Distractions

Separating work from home is a challenge.

Keeping your edge

Looking nice sets a tone for the day.

Accountability

With no office pressure to attend events or travel to trade shows, why bother?

In the past, we observed that large scale disasters are accompanied by increased mental distress: depression, PTSD, and domestic violence/child abuse.

References

9/11 attacks (2001)

1/10 adults in NYC showed signs of depressive disorder
25% population reported increased alcohol use

SARS epidemic (2003)

Increased PTSD, stress and psychological distress in patients/clinicians

Hurricane Ike (2008)

5% population met criteria for major depressive disorder

Today, more than half of Canadians feel lonely and isolated during lockdown¹

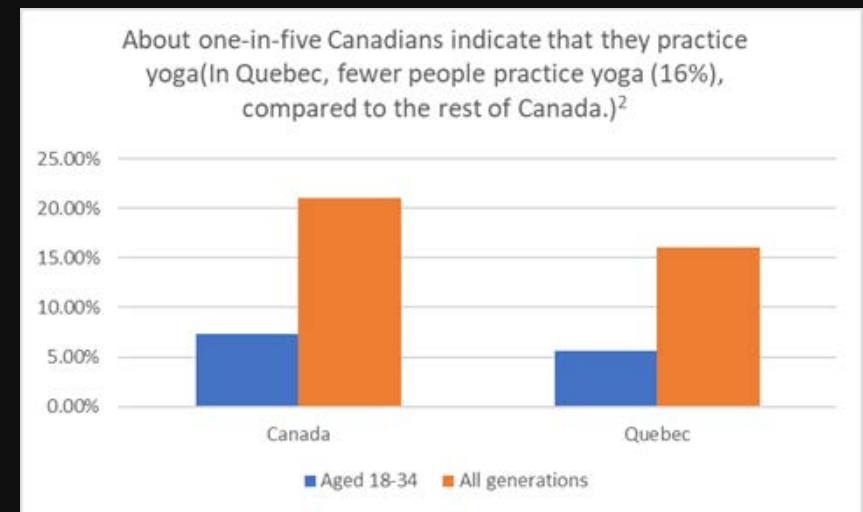
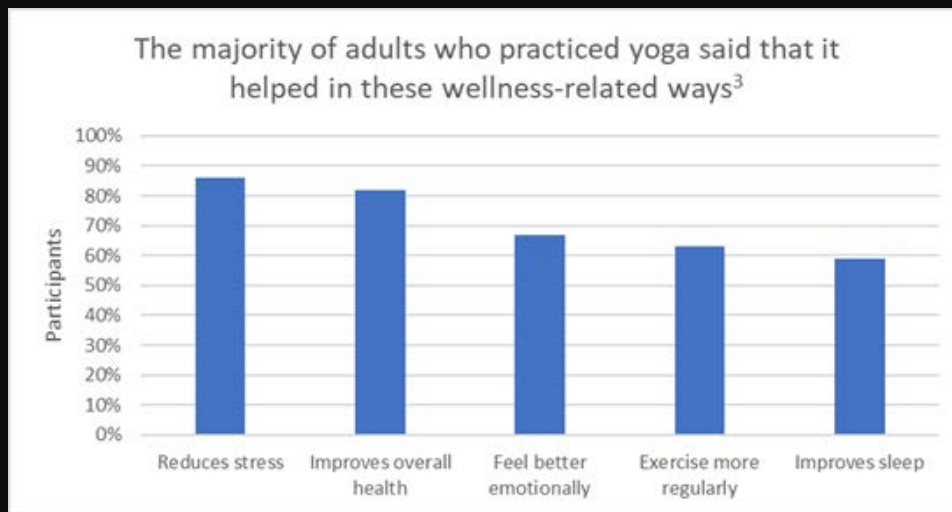


How Might We

help workers alleviate work pressure
and practice mindfulness & wellness?

Intervention space

The Pilates & Yoga Studios industry is anticipated to experience a drop in industry participation in 2020 as consumers stay away from group classes. **Consumers will turn to external competitors** i.e online yoga, and practice yoga at home as a way to cope with the anxiety and uncertainty⁴ of the pandemic.



1 <https://www.ipsos.com/en-ca/news-and-polls/Majority-Of-Canadians-Say-Physical-Distancing-Has-Left-Them-Feeling-Lonely-Or-Isolated>

2 <https://leger360.com/surveys/do-you-practice-yoga/>

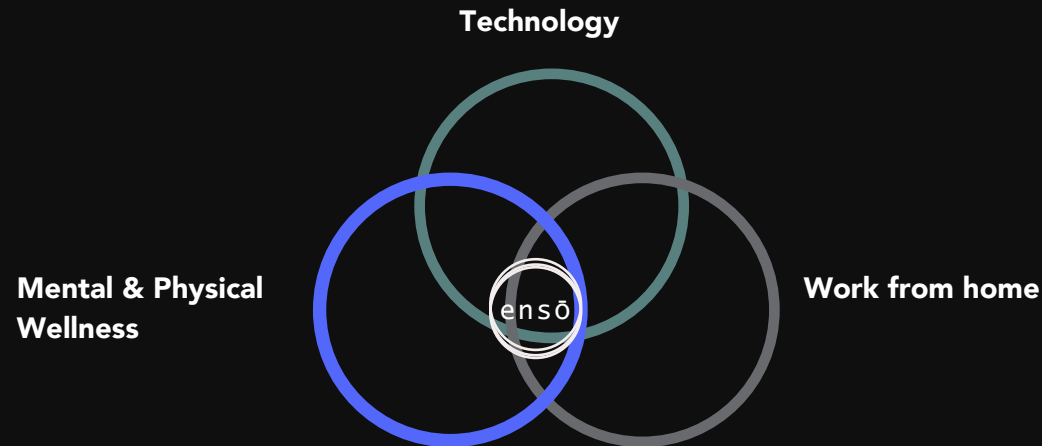
3 <https://www.nccih.nih.gov/health/yoga-what-you-need-to-know>

4 <https://www.ibisworld.com/united-states/market-research-reports/pilates-yoga-studios-industry/>

Solution

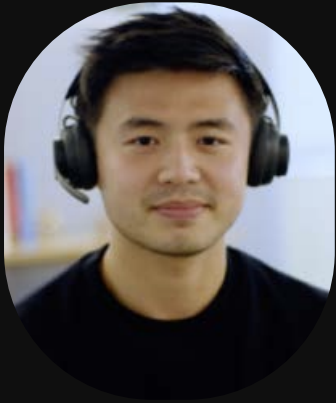


Ensō is a web extension that reminds workers to take a break while working on laptop. It provides a solution for people working from home to achieve work-life balance by practicing mindfulness, staying active and connected.



Practicing social distancing does not have to be idle and lonely!

Leo



Mindful

Pragmatic

Optimistic

"Your calm mind is the ultimate weapon against your challenges. So relax."

Age: 33

Work: Product Manager

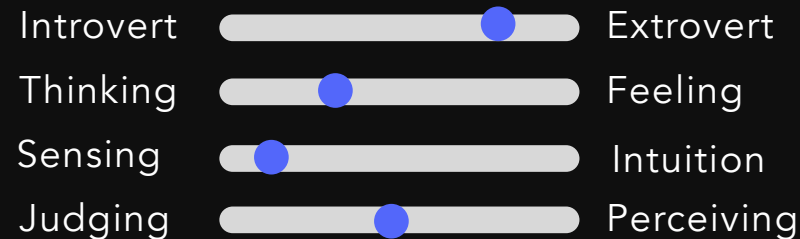
Family: Single

Location: Vancouver, BC

Biography

Leo has been working as a product manager for the past 3 years at Microsoft. Since the pandemic, employees have been asked to working from home. Leo has felt lonely and hasn't been able to be around people for weeks, so he dove himself into his work, forgetting to take breaks. But he knows better than this: work **smart** > **work hard**.

Personality



Motivations



Design



InVision link

<https://invis.io/ECX373ASBGK>

Code

GitHub link: <https://github.com/SoLetsCode/stretch-app>

Technologies: Front-end/Visuals: React, Sass, HTML

Backend/Server: Node.js, Express (to receive traffic for the server), Socket.io (to communicate between the client and server).

Challenges and Solutions

1- Timer Sync.

We tried to code this on the Front-end, but realized this would not work since the other people joining in would see their own timer.

Solution: Create a server that keeps track of time for everyone. We used Socket.IO, an API that creates a connection between the Front-end and Server. The Server can notify the Front-end of the time every second. This creates a timer.

2- Pose Change

How do we change poses after the timer resets?

Solution: Similar to how we notify the front-end of the time, we notify them of the timer ending by sending a "next pose" message.

3-Performance

Our front-end would receive an exponential amount of messages from the server causing it to crash. It would start at 20 then 100 then 1000. We figured this out when we `console.log()` a message each time the client receives a request.

Solution: We cleaned up subscription events after each `useEffect` call. We also removed creating a `socket.emit` each time a user logged in. Now the timer only shows the time once and the next call once.

Future to-do's

1. **Integration:** with Microsoft Teams and other video call applications (Zoom, Google Hangout, Whatsapp).

2. **Feature** it for other notifications (water breaks, walking breaks, different routines).

3. **Customization:** We need to add in a feature to change the settings on the timer. (Duration, Reps, Stretch Routine).

4. **Architecture:** The exercises are still stored on the client-side. I think they need to be stored on the server side which will push out the poses and exercise program that needs to be done. Perhaps server side rendering?

Next?

Pose Detection

Detects whether participants perform correct posture to prevent injuries



~Namaste~

