Portfolio 2022

Raphael Dokyun Kim - selected works

Privacy and Openness
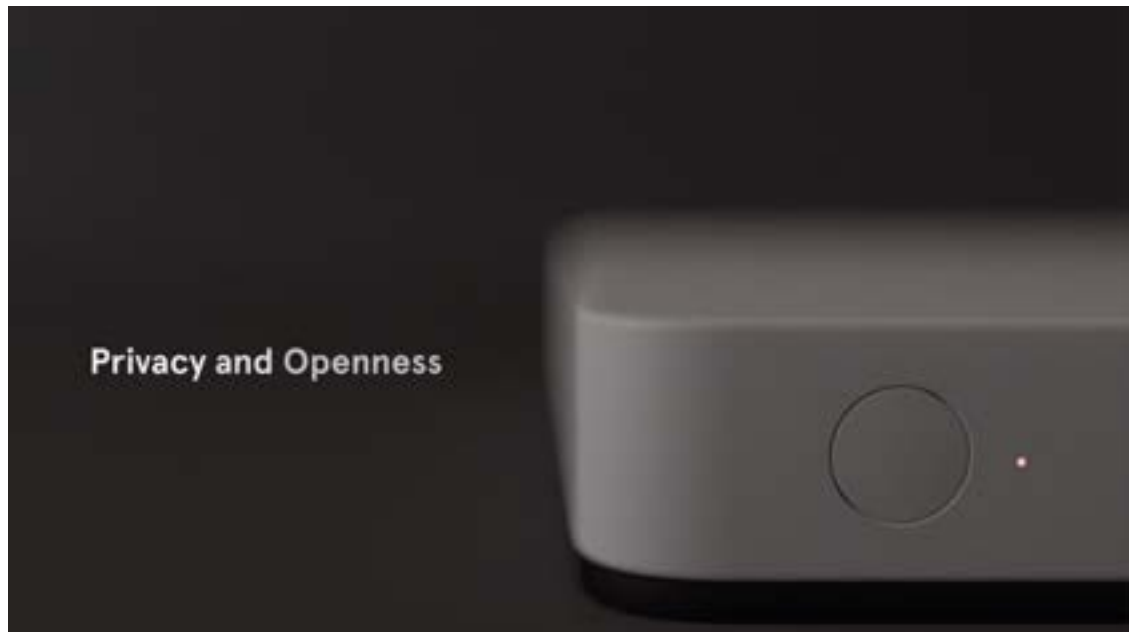
SnipsAir
concept video

This is a work on a new product concept when I joined Snips. I was asked to show what could be one of the futur product of Snips and was presented to potential investors.

- concept of a potential product
- storyboarding
- 3D design and rendering
- video editing
- the only thing that was done by a third party was audio.
From a cofounder of Snips "it greatly helped the acquisition by Sonos"

developped in 2018
duration : 3 weeks

Watch the full video ➔

Technologies such as voice recognition exclude mute people

Revoice
sign language control

Giving mute people the ability to control a smart home using american sign language. Disabilities should not be a barrier, I believe that everybody could interact in their own natural way.

We estimate that 4 millions people use sign languages worldwide

iOS, machine learning

from scratch
duration : 1 week

Watch the full video ➜

The new Sonos voice assistant seems faster than the competition

It's also focused on privacy, with all processing happening directly on the speaker.

N. Ingraham
May 11th, 2022

In this article: Sonos, news, gear, Google Assistant, Giancarlo Esposito, Sonos Voice Control, voice commands, Alexa

Sonos Voice Control
UX on the Sonos Voice Control

I wrote the early specification in user experience on the Sonos Voice Control that released the 1st June 2022.

Visit the website →

Look'n'Control
Giving more context to voice

Sometimes, it could be frustrating to talk to devices and having to specify which device we are talking to.
By adding gaze tracking, we can mitigate the context of which device the user intend to interact with

HTC Vive, Unity, mqtt

from scratch
duration : 3 weeks

Watch the video ➜

drawing in 3D
sprayce

**A digital spray to draw in a virtual environnement in 3D. This project was made several years before VR headsets. As an engineer attending a designer school, I wanted to find a easy way to represent 3D shape with minimal friction.
It could also be used to draw virual "buttons" in the physical world that let the user interact with. For example you can draw a virtual button on your desk and can be use to turn the desklamp on/off.**

developped in 2011
duration : 2 months

Watch the full video →
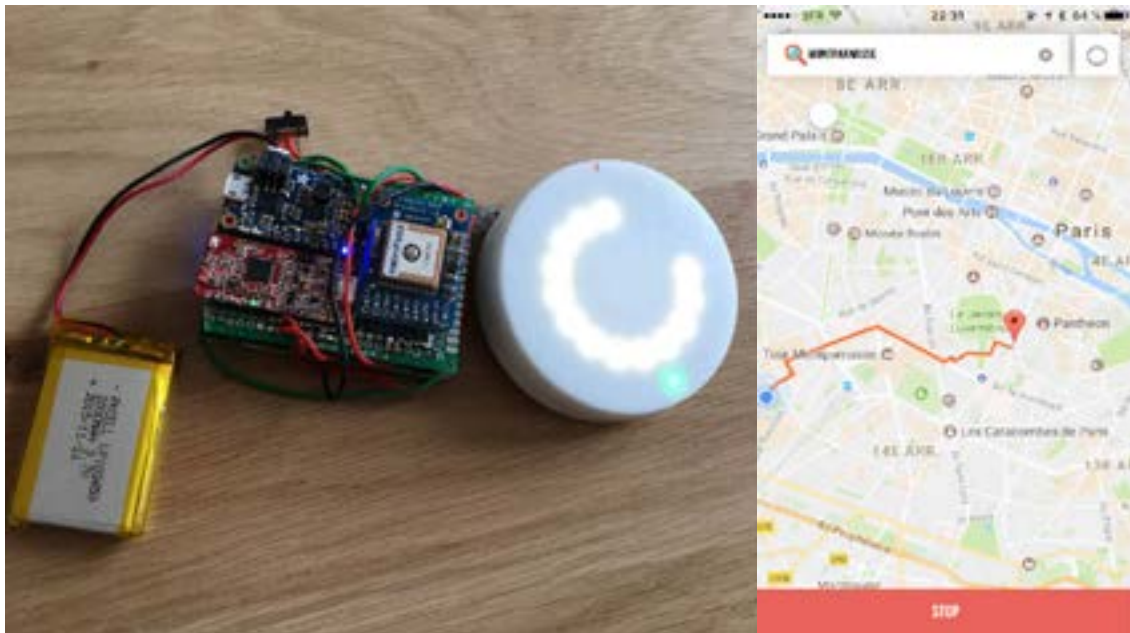
gps for bicycle/skateboard
without distraction

While biking, or skateboarding, using the phone can be distracting and dangerous. Especially if you ride electric skateboard in Paris which has bad roads condition and on the same lane as buses.

The app allows you to upload the destination on the gps. The gps shows the distance (inner ring) and the direction to go (outer ring).

You can toggle between two modes :
- one mode for explorators : only the direction and distance of the end target is shown
- one mode for hurries : turn by turn direction and distance are shown

developped in 2016
duration : 1 month

Watch the full video →

battery voice satellite
with direct control

A battery powered voice controlled satellite that can be anywhere in your home. This is one of many functionnal prototypes made from the SnipsAir idea.
There are multiple interesting use of this satellite :
- you can say "play some music in the kitchen"
- you can say "kitchen's light" and then control the brightness by turning the knob, turn on/off by pushing it.

a 64x64 led pannel give feedbacks to the user.

developped in 2018
duration : 2 weeks

point and control
home automation

This is a little project that I had in mind since I was a child : having telekinesis power.
The idea behind this experiment was to point an object to control it. In this case I am controlling lights, but we don't expect to interact the same way with other objects as we do with lights. Beyond this experiment, I got obsessed by : what is the best way to interact with a specific object/appliance ? How can I streamline interactions with the least mental load ? How natural can an interaction be ?

developped in 2016
duration : 30 minutes

Watch the full video →

knock to unlock

auto-unlock

Example of two naturals way to unlock a computer :
- by knocking on the desk
- by just showing up

developped in 2014
duration : 1 week

Watch the full video ➜   **Watch the full video ➜**
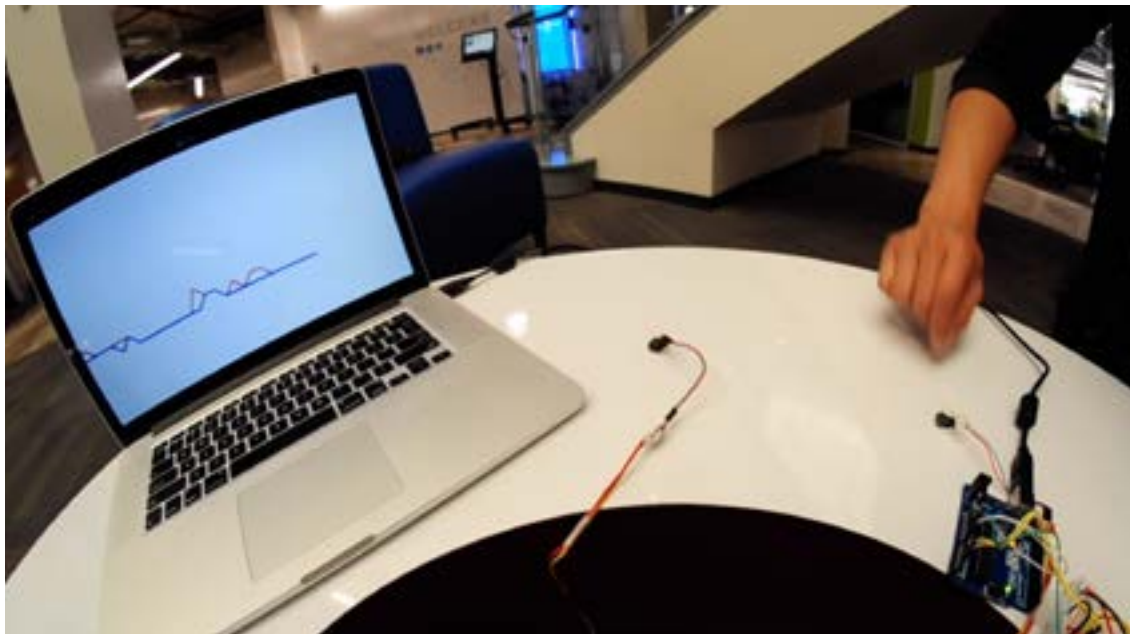
extend touch
touch interaction everywhere

This is an experiment where I attempt to make any surface touchable by tracking gestures using microphones.
This was not a success but I would definitively reinvistigate on this subject

developped in 2014
duration : 1 week

Watch the full video →

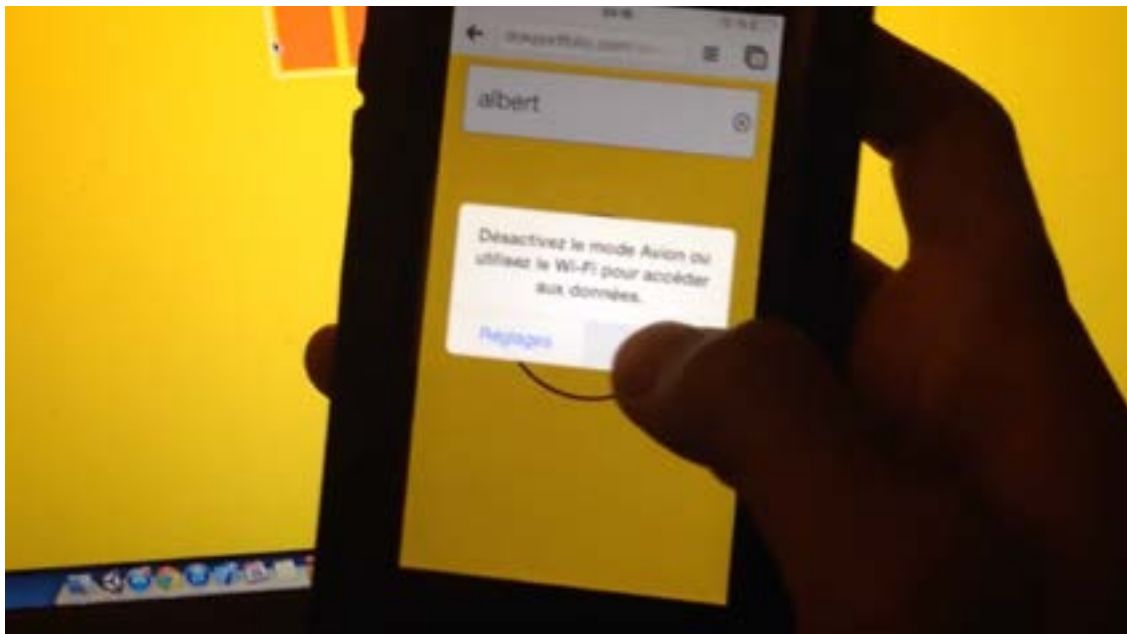# low tech communication
even in plane mode

I challenged myself to be able to make two devices communicate in plane mode (no cellular, no wifi, no bluetooth)
I've used microphones and speakers of each device and ultrasound to pass data from one to the other.
It could be used to pass short distance security passcode between two devices without having specific additionnal hardware.

developped in 2018
duration : 2 weeks

Watch the full video →

voodoo
video games

This is a video game made on Unity controlled by a doll full of sensors.
You can punch it, yell at it to unlock powers and help the character move forward.

developped in 2012
duration : 1 week

Watch the full video ➔

companion assistant
robotics

The companion is voice-controlled and also has the ability to recognize and track the face of his owner and follows him.
He can recognize object to unlock some useful tricks : you can show him a vegetable and ask "what can I make with this" and he will come up with recipes and displays it. He can stick to the content format and present it in portrait or landscape accordingly.
Some accessories can be attached to him such as a guitar amp controller to ask for presets and control the amp by voice.

developped in 2019
duration : 1 month

Early prototype →

drawing assistant
voice-controlled

This is an assistant that helps user to draw
in real life by using digital tools.
- draw lines and angles
- draw circles
- real life color picker

developped in 2018
duration : 2 weeks

Watch the full video →

augmented rpg game
voice-controlled

Developped a mini game to show snips technology to unlock the video game market.
You can control a character by voice and it includes some features such as chain triggering commands without having to say the wakeword again.
Technically, a minimal timing must be followed from one command to annoter
One way of designing the game would be t

developped in 2018
duration : 2 weeks

Watch the full video →

over-engineered control
voice-controlled, absolute positionning

This is an over-engineered way to turn off and turn on a light. You can turn on/off the light by pointing it and ask "Turn on/off THIS light".
We can imagine that this can be transposed into glasses.

developped in 2018
duration : 2 weeks

Watch the full video →

SIMULTANEOUSLY BY MULTIPLE USERS

coScreen.co
from early prototype

coScreen is an app that makes your second display a space to collaborate. You can drag and drop a window you are working on and people can collaborate on it in real time.
I have developped the concept, made a prototype and the app for macOS.

Patent application number : 14/546,480

! ACQUIRED BY DATADOG Feb 10, 2022

developped in 2014
duration : 6 months

go to the website →

CACHAN

L'application qui vous met en contact avec votre voisin

Vous avez des stabs avant de vous attaquer, seul, au montage d'un meuble Ikea? Besoin de sel pour vos fêtes ? De quelqu'un pour pousser votre voiture en rade sur le périphérique ? Si vous n'avez pas aller au-devant d'autrui pour régler ces petits tracas, une application 100 % gratuite sur votre iPhone, lancée par trois anciens étudiants de Cachan, peut vous y aider.

« Lorsque nos grands-parents avaient besoin de quelque chose, c'était simple : ils toquaient à la porte de leurs voisins », explique Kaïs Haddad, l'un des créateurs de beeProxy. Une habitude que trois jeunes fraîchement diplômés de l'Ecole normale supérieure ont souhaité remettre au goût du jour grâce aux nouvelles technologies. En une semaine, l'application beeProxy a comptabilisé 300 téléchargements, en provenance essentiellement d'habitants de Paris et de Grenoble.

Offres de services, mais aussi informations

PARIS, LE 15 OCTOBRE. Aurélien Ibanez, Raphaël Kim et Kaïs Haddad (de gauche à droite), trois jeunes fraîchement diplômés

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beeproxy
proximity social network

beeproxy is a proximity social network of services to help and get help from your neighbours
We founded this project in order to create social villages in real life and to refocus on what is fundamentals : human connection.

**developped in 2011
duration : 1 year**

music
improv and comp

As a self-taught musician, music is a huge part of my life. Music technology is also a big subject in my daily life.
Here are some latest creations, enjoy and have a nice day !

Soundcloud ➜

more about me
create create create

Creating a meaningful interaction is my engine. I have hard time sleeping until I can express myself by making something. That's why I've built specific skills to ease the friction between my goals and I by learning everything I need by myself, including graphical design, 3D, game making, electronics, programming, AR,VR, AI, Web, video making, music, photography, voice-tech. I make over engineered experiment for fun but my favorite experiments are the ones that are engineered enough to make it feel right.

I embrace calm technology and fluid interfaces concepts.