

## WORK EXPERIENCE



### TOMORROW LAB, NY

Electrical Design Engineer

Jun 2021 - Now

- **Capture Schematics, design PCB Layouts, bring up prototypes, develop dedicated firmware, test and conduct power studies, in a lab-style environment.**
- As a part of a **multidisciplinary** team of engineers and designers, develop first-of-its-kind products from **prototype to market-ready**, for clients like **Nerf, IMAX, and Citizen**. Worked closely with Citizen's software engineering team for Bluetooth Low Energy app integration.
- Manage **eBOM** — research, test, source, and procure components (standard or custom). Worked with PCBA vendors to get **turnkey PCBs** fabricated.
- **DFM** — Optimize PCB layout design, component selection, and incorporate self-test features, for streamlining assembly process, cost reduction, and lowering risk of manufacturing defects.
- Hands-on experience interfacing electrical systems with 3D printed/machined/manufactured **mechanisms and housings** and conducting their **electromechanical performance analysis**.
- Trained and supervised electrical engineering intern for 4 months.
- Co-host of "Potentially Genius", an **educational** YouTube series, partnering DigiKey, and collaborating with guests from **Analog Devices, Adafruit, Sparkfun, and Hackday**, where we rapidly prototyped whimsical inventions on camera.



### NEW YORK UNIVERSITY, NY

Graduate Assistant (OK Robot Reboot) Jan - May 2021

- Assisted Prof. Pedro Oliveira with an undergraduate course on human-AI interaction. Taught and prepared materials related to **Raspberry Pi, OpenMV, IBM Watson, SSML, Python, Node.js**.



### SCMP, HONG KONG

Salesforce Developer

Oct 2018 - Aug 2019

- Retired legacy sales system with **SalesCloud**, using **Apex, SOQL, Javascript**.

## AWARDS AND ACHIEVEMENTS



### MIT ENTREPRENEURSHIP & MAKER SKILLS INTEGRATOR

Champion, Engineer, Design Lead

Jan - Feb 2018

- Competed against 4 other teams of entrepreneurs to win "Best Product & Business Idea". Demoed prototype and presented GTM strategy to VC judges.



### DISNEY IMAGINATION DESIGN COMPETITION

Finalist, Team Leader

Oct - Nov 2016

- Designed a "public recreation space" based on Disney design principles and IP

## EDUCATION

### NEW YORK UNIVERSITY

Sep 2019 - May 2021

MPS, Interactive Telecommunications (ITP)  
4.0 GPA, Tisch Scholarship, Red Burns Scholarship

### CITY UNIVERSITY OF HONG KONG

Sep 2014 - May 2018

BSc, Creative Media (Computing)  
Valedictorian, Dean's List

## SKILLS

### ELECTRICAL ENGINEERING

Schematic Capturing & Layout Design (Eagle/Fusion 360)  
STM32, BLE(Nordic nRF52), Maxim AI, C/C++  
PCB manual assembly, soldering (down to 0201)  
Bench power supply, DMM, oscilloscope, microscope, CNC  
UART, I2C, SPI, FTDI, ICSP  
IoT System Design  
Low power circuit design & budgeting  
Data processing and Algorithm design

### HARDWARE PROTOTYPING

Fusion 360, FDM & SLA 3D Printing, Machine Shop tools

### SOFTWARE DEV

ML model training (Pytorch), Linux, Git, MERN Stack, SQL

### SOFTWARE DESIGN

UX Design (Figma), Adobe CC

## SELECTED PROJECTS

### Ongoing client project 2023

Edge Artificial Intelligence (LLM, etc) on NPU enabled ARM SoC.

Rockchip RK3588, RKNN, LLaMa, Ubuntu

### Salt Stone (client project @ Tomorrow Lab) 2022

Patented battery-powered microscopic salt grinder/dispenser for salt therapy at home  
STM32, Eagle PCB, Firmware/UX, LED & Motor Control, DC/DC Converter, LDO

[myfriendthesea.com](http://myfriendthesea.com)

### The Mint (client project @ Tomorrow Lab) 2022

Hair styling wand with motorized and heated hair product dispensing for textured hair  
Geared Motor, NTC, Metal Ceramic Heater, PID Control  
[richualist.com](http://richualist.com)

### Unpublished project @ Tomorrow Lab 2023

Low Power Usage tracking IoT device  
nRF52, Rigid Loadcell, Soft Strain Gauge, MEMS microphone, Eagle PCB, Firmware/UX