WOOJAE KANG

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EDUCATION

MA DESIGN PRODUCT, ROYAL COLLEGE OF ART(RCA)

SEP 2020 - JUN 2022

PLATFORM : DESIGN THROUGH MAKING

Grad : Button game - Converting climbing hold data into vision

Dissertation - Why the great designer should learn about economics?

BS, INDUSTRIAL DESIGN MAJOR, PHYSICS MINOR, KAIST

FEB 2011 - FEB 2020

PROF BAE SEOK HYUNG LAB.

Grad : Height change stool using tensigrity
Physics major, KAIST Feb 2011 - May 2014

WORKING

RFFL DESIGN STUDIO

INDUSTRIAL DESIGNER, JAN 2024 - JUN 2024

SUWON, KOR

Developing Ai for architecture concept rendering. :
Using Midjourney and Stable Diffusion to make concept rendering.
Focused on Image Prompt to create more user intended rendering.

Develop products for 'TheWaveTalk' water monitoring sensor :
Design a product attached on swimming pool shaped of water drop.
Develop structure of brita water monitoring module.
Develop module series for water purifier, tumbler, pet bottle.

Make 3D printed lamps by single path 3D printing which is a custom g-code. Using grasshopper in rhino 3D to create custom g-code.

JOHANNES TORPE STUDIO

INDUSTRIAL DESIGNER INTERN, MAR 2023 - SEP 2023

COPENHAGEN, DK

Design next high-end refrigerator for Haier :
Design internal structure to persuade the engineering team in Haier.
Focused on providing pro-chef experience to user.
Design dynamic interaction using light on shelves and door exterior.

Design series of lighting products for Leucos :
Develop the table lighting at restaurant Levi into a series that showcases the glass craftsmanship of Leucos. The design highlight beautiful glass knobs and include ceiling, table, standing, and wall-mounted lights.

HEALTHYBROS.

PRODUCT DESIGNER, APR 2020 - AUG 2020

SEOUL, KOR

Redesign of the existing pull-up bar handle :
Designed a pull-up bar handle from a single bended pipe that allows for various grips. This connected grip provides a wider range of hand positions.

Design weight changeable dumbbells for home :
Design a weight adjustment structure to ensure the equipment feels solid and stable, like a single sturdy object.
Similar to Eleiko's dumbbells, the handle rotates to reduce strain on the wrists.

FABLAB BARCELONA

INTERN IN EDUCATION DEPARTMENT, SEP 2018 - NOV 2018

BARCELONA, ES

Maintain and operate machines like CNC, 3d print, laser cut, etc.

Created exhibition panels for science museum displays. As a panel requires 1.5x2.4m which is hard to carry, using dovetail joinery to create easily transportable, modular.

Designed a portable toolbox that, when opened, transforms into a small workshop, making it ideal for mobile classes. Using vacuum forming for mass production. Rounded edge design from bending plywood.

KAIST 'MY DESIGN LAB' X 'SHERPA'

INTERN, DEC 2017 - MAR 2018 DAEJEON, KOR

'My design lab' in prof Danniel Saakes, KAIST Korea

Design home cultivator for Sherpa :
Making quick real size mock-ups to design better user experience. Focused on physical interaction and user experience.Making design prototype with al frame, acryl, 3d printed parts and painting myself.

PROJECT

DEVELOPING BP'S 5 - 10 YEAR VISION OF CLEANING SOLUTION FOR AUTONOMOUS DRIVING VEHICLE.

BPXRCA, NOV 2021 - JAN 2022, CLIENT : BP PLC

AWARD - BP SPARKLING CHALLENGE 2ND PLACE

During COVID, indoor air transmission became a critical concern. I designed a vehicle interior ventilation system from airplane ventilation systems to create a unified airflow, reducing the risk of infection inside the vehicle. Additionally, the seats frame were designed by air-less tire structure allowing air flow clean seats.

APPLYING LG'S LATEST DISPLAY TECHNOLOGIES TO CONCEIVABLE DESIGN:

LG DISPLAY X RCA, 2021 CLIENT : LG

Using LG Display's latest technology, to create home devices that connect different generations in the family. Traditional games such as chess and Yut-nori evoke memories for all family members. By incorporating the latest tech display into these physical interaction traditional games, we can create long-lasting products unlike other electronics.

A GYM PRODUCT SUITABLE FOR DATA MINING TO COACH WORKOUT TEMPO.

S-DUMBBELLS, 2018 SOLO PROJECT

Uses a gyroscope sensor to collect user data.
Builds a standard tempo based on professional trainers' motion.
Implements data smoothing to reduce noise from the sensors.

MODULE FOR PRO CLIMBERS TRAINING ASSISTANCE BY DATA COLLECTING

BUTTON GAME, 2022 RCA GRAD, SOLO PROJECT

Measuring the amount and direction of force applied to key holds in sport climbing
Real-time feedback is provided through lighting, considering the sport's need to focus on the holds.
Pressure sensors on the x and y axes estimate the force vectors.

SKILLS

RHINO 3D
GRASSHOPPER
AUTODESK FUSION 360
SOLIDWORKS
KEYSHOT RENDERING
ADOBE PHOTOSHOP
ADOBE ILLUSTRATOR
ADOBE INDESIGN
ADOBE PREMIERE
STABLE DIFFUSION(AI RENDERING)
STATISTIC
ENGINEERING MATHEMATICS
TRADITIONAL WOODWORK
HAND CRAFT MAKING SKILLS
BASIC CODING(JAVA, PYTHON)

LANGUAGE

KOREAN NATIVE LANGUAGE
ENGLISH IELTS 7.0

REFERENCES

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