

Joseph Watson

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INTRODUCTION

I am Joseph Watson, I am a **CAD engineer**. I have extensive experience working in the **robotics industry**, and I have worked with several **robotics companies** and **consumer electronics companies** to **design, assemble, and test** a range of complex **mechanical products**. I am a self-motivated, technically-minded individual with proficiency in a **very wide range of engineering and design softwares**, and I am constantly searching for new ways to improve and innovate, and constantly keeping my CAD skills and knowledge up-to-date.

EXPERIENCE

Audio-Technica (Greater China) Limited - Senior CAD Engineer

November 2023 - Present

- Worked in **Product Development and Design for Manufacturing** for Audio Technica, handling microphone and headphone **Design and Production**, including creating manufacturing technical documentation in **Chinese and English**, and working closely and on-site with Mainland Chinese factories for mass manufacturing, production and assembly of audio products and components. Job duties also included **Handling First Article Inspections and Quality Control** procedures.

Lam Gwong Design Company Ultd. - Senior CAD Engineer, owner

Founded in July 2020

- Freelance **CAD engineering services**, and **3D modeling**.
- I have done **CAD engineering** for several **robotics companies** designing **mechanical systems and components for manufacturing**, as well as working with several **consumer electronics companies**.

Hanson Robotics Ltd. - CAD Engineer (Mechanical Engineer)

Client

- Designed and assembled a wide range of **robotics assemblies and injection molds** for the use in their **commercial robotics products**.
- Select **suitable materials and manufacturing processes** for components for **optimal performance and cost**

SKILLS

SOFTWARE

Solidworks

Keyshot

Geomagic

Zbrush

Maria

Houdini

Fusion

Rhino

Blender

MeshLab

Slicer Medical Viewer

Ansys

Ein-Scan Pro

ArtiSynth

GENERAL

CAD engineering

Production and Manufacturing

Injection mold design

Vacuum form tool design

Die Casting mold design

optimization.

JC Collections Ltd. - CAD Engineer (Mechanical Engineer)

Client

- Designed and produced various motorized **scale models** for iconic historical military aircrafts, and vintage film characters, for **mass manufacturing** to be sold on the market as **consumer products** for model-making enthusiasts and Hobbyists.

Cordex Ltd. - 3D modeler

Client

- Created detailed **3D models** of several aircrafts and related gears and equipment with high-resolution texture maps and animation libraries.
- Used in **educational AR/VR applications**.

Art Roof Top Ltd. - CAD Engineer (Mechanical Engineer)

Client

- Created and installed **large-scale mechanical assemblies** Complex corporate art pieces on display in several large corporations throughout hong kong.
- Installation spaces include the Adidas corporate headquarters, and Delta aluminum corporate headquarters.

Artech Design and Production Company Ltd. - CAD Engineer & 3D modeler

Client

- Designed and built multiple **animatronic robots** for use in research, and for commercial use in the theme park industry.
- Conducted **Performance and lifetime assessment and optimization** for robotic assemblies.

Freelance CAD Design, Hong Kong/ United States — CAD Designer

October 2019 - February 2020

- Worked on multiple **CAD design** projects for Hong Kong, US, and China based clients, including design for many **injection molded plastics, CNC milled metal parts, and digital character sculptures**.

Hanson Robotics, Hong Kong/ United States —Senior Robotics Engineer

January 2016 - September 2019

- Led the **CAD design** for the head and neck of several **humanoid robots** including the world-famous robot "Sophia"
- My duties included **full design, assembly, and testing** of robotic characters.

Tool design

NURBS surfacing

Medical scan 3D reconstruction

FEM analysis

Figure Drawing

Sculpting

3d scanning / processing

Raster mapping

Animation

3D Rendering

LANGUAGES

English, Cantonese, Spanish

- creating physics simulations of heat dissipation, airflow, and injected plastics flow.
- Creating assembly instructions for outsourced assembly tasks.
- conducting time and motion studies for assembly tasks.
- Communication with Chinese manufacturers to coordinate the production of parts.
- I Spent a portion of my time working from Los Angeles in Collaboration with several Hollywood animatronics designers.

Hanson Robotics, Hong Kong/ United States — Full-time Paid Internship

August 2015 - December 2015

- Before I became an employee for Hanson Robotics I worked full-time as a paid intern there. My work focused on the design and construction of humanoid robotic prototypes.

Hensel Phelps Construction, United States — Construction worker

May 2014 - September 2014

- My job duties entailed erecting concrete formwork, erecting rebar, and pouring and demolding concrete structures. The main site I worked at was for the construction of the international wing of the Hobby Airport in Houston, Texas.

K3-BMI Oilfield services, United States — Maintenance Worker

May 2013 - March 2014

- As a maintenance worker for an oil field service truck center my job duties entailed warehouse organization, truck painting and maintenance, and forklift operation.

EDUCATION

- **Chinese University of Hong Kong — Chinese Language studies**

January 2021 - November 2022

- **Hong Kong Polytechnic University — Biomedical Engineering**

August 2017 - May 2018

- **UT Dallas — Biochemistry**

August 2014 - January 2016

- **Alvin Community College** — *Associates Degree (Through Dual-Credit courses during High School)*

May 2011 - May 2013

EXHIBITIONS

- **Refract@6: West Kowloon Cultural District, 2024**
 - Programmed and rigged 3D characters and 3d scenes for live performance at West kowloon Cultural District for the REfract@6Degrees” performance .
- **Phygital D: West Kowloon Cultural District, September 2022**
 - Programmed and rigged 3D characters for live performance at West kowloon Cultural District for the “Accelerating Dimensions” Performance during the Phygital D Exhibition.
- **Hong Kong AAF (Affordable Art Fair) 2019 Spring Exhibition**
 - Exhibited and sold artwork at the Hong Kong AAF hosted at WanChai Convention Center in Spring 2019.
- **Art Roof Top Ltd. — Founding Gallery Member**
 - A founding member of Art Roof Top Ltd. Hong Kong based art Gallery in Happy Valley, Hong Kong.
- **Shenzhen City Art 2018 Fall Exhibition — Exhibitor**
 - Exhibited and sold artwork at the Shenzhen City Art Fair in Shenzhen, Fall 2018.
- **Asia Contemporary Art 2017 Fall Exhibition — Exhibitor**
 - Exhibited and sold artwork at the Asia Contemporary Art Exhibition in Hong Kong, Fall 2017.