

Education

Imperial College London

Dyson School of Design Engineering 2018 - 2022

MEng Accredited by the IED, the IET, and the IMechE (On track for 2:1 Upper Second Class)

Modules Include: Design, Mechanics, Electronics, Engineering Mathematics, Computing, Production and Materials, Gizmo: Physical Computing, Energy in Design (Thermofluids), Big Data, and Engineering Design Project.

Christian Alliance International School (CAIS), HK 2011 - 2018

Alberta High School Diploma (High Honours): Mathematics 30-1 (93%), Mathematics 31 (96%), Physics 30 (91%), Art 30 (91%)

Projects

Connect: Explore

Explore is a device and system to create an independent museum experience for blind visitors.

- Performed needfinding and ideation
- Conducted primary, secondary, and tertiary research, on subject matters such as the competitor market, interviews with a blind user, opportunity areas, and compliance with EU legislation and international standards
- Developed concepts and physical prototypes
- Presented idea with slides, and performed voiceover in pitch video

Tetriling Puzzle Algorithm

The tetriling puzzle is a computing project to fill an arbitrary puzzle space generated with tetris pieces.

- Developed a greedy algorithm in Python to fill as much of a puzzle space of up to 1000x1000 in the shortest time possible with great accuracy
- Developed a backtracking recursive algorithm in Python to fill a puzzle space with 100% accuracy

Green Square Packaging Futures

This project was futures research project on how a circular economy might be implemented in the field of FMCGs (Fast moving consumer goods).

- Performed STEEPV analysis in the context of FMCGs in the cleaning industry
- Conducted primary, secondary, and tertiary research on subject matters such as the logistics of transportation of FMCGs, and the functions or lack thereof of the current recycling model

Youtube Channel Surfing Tool

This was a personal project inspired by a friend who wanted to find Youtube channels with very specific search parameters such as having more than 3000 views.

- Wrote a python script that pulls data from the Youtube API
- Wrote code in python to prompt the user for values for search parameters and gave results in a spreadsheet form with channel names, links, and other info such as recent activity, language, and country

Phone: +44 7365916933 | Email: jjt618@ic.ac.uk
Portfolio: jonjtt.github.io

Skills

Soft Skills

Please see Extracurricular Activities for examples of soft skills such as: leadership, team work, and interpersonal skills

Design Software

Proficient with **Adobe Suite**, particularly with **Illustrator** and **InDesign**

Proficient with **Solidworks**, for 3D modelling and FEA Analysis, with experience using CES Edupack

Design

Proficient at **Rapid Prototyping**, including **3D Printing**

Experience using laser cutters, and workshop equipment

Coding

Proficient in **Python**, **HTML**, and **CSS**, with experience in Matlab, Arduino IDE, C++ and Javascript

Productivity & Office Software

Proficient with **Microsoft Office**, with experience using **Teams** and **Planner** for project management, and regularly using Excel and **Excel formulas** for personal account keeping
Proficient with **Google Workspace**

Media Software

Proficient with **OBS**, with experience producing and administrating Church services on **Zoom**

Proficient with **Voicemeeter** and **Audacity**, with experience using **Cakewalk** for multitrack recording

Languages

Native **English** speaker with conversational skills in **Cantonese** and **Mandarin**

Extracurricular Activities

Volleyball (Player and Assistant Coach)

2016 - Present

- Played on various teams (CAIS U20 (ISSFHK), Imperial College Chinese Society team, ICVC (Imperial College Volleyball Club) Mixed team, and ICVC Men's First (BUCS Premiere South), working with various coaches and players
- Helped coach and run trainings for CAIS in 2018 and 2019 summers

Glow in the Dark (Student Group for Christian Ministry at CAIS) (Member and Student Leader)

2013 - 2018

- Led worship and worship team during school chapels and events
- Planned and led activities with co-leaders on outreach trips to China, teaching English to middle-school students and inviting them to church