

Kinkit Wong

Integrated Design Engineering

University of Bath

2014—2019

Current Average: **71.1%**

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|-----------------------|---|-----|
| User Centred Design | : | 73% |
| Mechatronic Design | : | 74% |
| Product Design & Dev. | : | 77% |
| Solid Mechanics 4 | : | 79% |
| Fluid Dynamics | : | 89% |
| Business Processes | : | 74% |

A Level

Hampton School

2012—2014

A* (2)

Maths, Physics

A (1), B (1)

DT (Resistant Materials),
Further Maths

GCSE

Hampton School

2009—2012

A* (6)

Maths, DT, Physics,
Chemistry, Biology, Mandarin

A (4)

French, English Literature,
English Language, History

Personal Information

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More information on projects found within my portfolio:
<https://2kdesigns40225533.wordpress.com/>

Projects

Group Business Design Project

The Brief

Design an electric wheelchair for pre school children (14months - 5 years old) in developing countries. The product should be low cost, affordable and culturally appropriate, coupled with a suitable business and distribution strategy.

This project lasted a semester and I was the product manager within a team of 6. I was required to oversee the design of the product and maintaining a coherent design aim throughout. I created a design specification, which drew information from ISO standards and market research (both primary and secondary), in order to maintain focus on solving the design brief.

During the initial design stages of the project, I organised and participated in many unique idea generation activities such as a 'Tiered Mind Map' and 'BBB Brain Sketching'. Using these methods, we were able to generate over 74 unique ideas and methods of solving the design brief. Through these activities, I learnt how to generate valuable ideas effectively using a various methods.

Following the initial stages, I combined all the best aspects from the initial design activities and created detailed sketches of the product. Once dimensions were finalised, I became the CAD lead and created a majority of the product component and all the assemblies in CAD (Autodesk Inventor Professional 2018). From this, I have improved greatly in 'global' parametric modelling as well as effective model assembly, integration of different representations within an assembly, animation and rendering.

In order to prove the design, I created low fidelity prototypes to test certain functions and organised a visit to a local nursery for target market testing. Through this, we iterated the design and further prototyped until a final design was produced.

User Centred Design

The Brief

Improve the accessibility of a standard ATM for a wheelchair user with reduced motor skills in one arm.

This project required close iterative design work with constant client communication through interviews and prototype feedback. Low fidelity functional prototypes were made along with a mock user interface to investigate the effectiveness of the solution.

I have improved both my client interaction abilities and my prototyping capabilities. I can confidently interview clients and obtain their unbiased view, generating meaningful data and concurrently improving designs with the results.

Mechatronic Design

The Brief

Create an automated system that scans, detects and physically marks magnets buried under sand within a given area.

A course mate and I created a mechatronic system to solve the brief given above. This involved designing a mechanical end effector, which interfaced with physical markers, controlled by an Arduino which was tethered to MATLAB.

A hall effect sensor was used to detect the magnets and a combination of a lead screw mechanism coupled with a key and keyway concept was used to manipulate markers.

I improved in coding, mechatronic design, electronics integration and manufacturing of high fidelity mechatronic systems.

Internships

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| BOSCH Stowmarket 2017, 1 Year Paid | <p>During my studies, I obtained a year long placement with ‘BOSCH, Professional Lawn and Garden’, a subsidiary of ‘Robert Bosch GmbH’, based in Stowmarket.</p> <p>I aided in both testing and creating test procedures from ISO standard for a wide variety of gardening products before they were released to market along with designing improvements to the current line of professional tools through CAD (PTC Creo Parametric) and prototyping.</p> <p>I was heavily involved in the early concept and prototyping stage of many products.</p> <p>I also had the opportunity to join on company visits to machining and injection moulding suppliers as well as customer visits in Switzerland.</p> |
| UBS London 2010, 1 Week Expenses paid | <p>At UBS, I had the opportunity to learn how to code on ‘Visual Studio’. I was tasked with designing a method of displaying customers’ stock progress in a simple and clear way.</p> <p>I designed the graphics and programmed the relationships between it and the actual values.</p> |
| Nice Agency London 2011, 2 Week Unpaid | <p>Nice Agency is a app design company in London. The internship started around Christmas, hence I was asked to create a company Christmas app that could be distributed as a marketing tool.</p> <p>I designed and storyboarded the app through Photoshop and Illustrator, ensuring its design matched the company’s aesthetics. At the end of my two weeks, I had an opportunity to present my idea to the CEO of the company.</p> |

Employment

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| ODEON Esher 2014, 2 Months | <p>Working at ODEON involved considerable cleaning of theatres and customer interaction. I excelled especially in customer service via the most sales of ‘combo deals’ and loyalty cards as well as having the most positive customer reviews. This resulted in me winning the employee of the month award in my first month.</p> |
| Tossed Cobham 2015, 1 Months | <p>As an employee, I was required to make food such as salads and wraps according to precise instructions given by the company as well as upholding the jovial nature they portray. I was able to familiarise myself with all the processes and excel in speed and customer service, resulting in me winning the employee of the month award.</p> |

Extra Curricular Activities

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| Film Prop Manufacture 2018 | <p>I was asked by an external student group creating a short film to manufacture a custom home assistant for them. This involved remaining in constant contact with them, understanding their needs and finally creating a home assistant prop which consisted of 3D printed and laser cut components encasing a mini Arduino which controlled the LED lighting system within.</p> |
| Young Enterprise 2014 | <p>As an external project, 5 of my classmates and I started a company together called ‘Axis’ and attempted to raise money to fund our business plan of travel toiletries. I was in charge of designing the product and creating fundraising strategies.</p> |
| Hip Hop/Break Dancing 2014 — Present | <p>Since starting University, I have learnt to dance via the break dancing society, ‘Burban’. I have been on committee for 3 years running, acting as ‘Urban Leader’, ‘Urban Vice Leader’ and ‘Chair’. During my time on committee, I was able to increase the society’s membership and enter Burban into their first Hip Hop competition. I choreographed many pieces for both performances and competitions and ultimately won multiple awards including first place in ‘Novice Hip Hop’.</p> |
| Tennis 2011 — Present | <p>I have played tennis since I was 16 and have completed the level one tennis leadership course, thus I am qualified to assistant coach under 9s which I did from 16-18 years old.</p> |