



YAP XIAN IAN

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SUMMARY

Detail-oriented **Automation R&D Engineer** offering skills and knowledge in innovative machine design, CAD/CAE, automation, manufacturing and rapid prototyping technologies. An imaginative engineer looking to broaden my creative thinking and skills by gaining new experiences thru exploring different environments.

SKILLS

- Computer-Aided Design (CAD): Solidworks, PTC Creo
 - Computer-Aided Engineering (CAE): FEA, Motion Analysis
 - Manufacturing Processes, Rapid Prototyping and Material Selection
 - Technical Knowledge in Automation and Machine/Mechanical Elements and Design
 - Project Management
 - Microsoft Word, Excel, Powerpoint
 - English, Chinese (Mandarin), Malay
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EXPERIENCE

12/2019 – Present

Researcher [Engineering Department] / Top Glove Corporation Bhd, Klang, Selangor

- Responsible to research, design and implement POC, prototypes and solutions for high impact unsolved problems within the glove industry by incorporating novel mechanical designs
- Successfully designed CAM driven mechanical mechanisms with multiple independent movements, required to run continuously in production line, utilizing various mechanical elements and material optimization
- Designed and implemented a complex mechanical machine assembly consisting of thousands of components on Solidworks which reduces manpower and increases production output, employing large variety of machine elements
- Researched and designed an innovative gantry motion automation machine which provides new and improved method of glove stripping and folding in production lines, using mixture of motors and actuators
- Researched and designed former (glove mould) holder mechanism which allows former to be replaced at any point in production line, ensuring design features can be injection moulded
- Led a cross-functional team responsible for project and process implementation into production line
- Supervised a team of workers for in-house fabrication and assembly process of machines
- Collaborated with fellow engineers to produce modifications to increase functionality of facemask making machine
- Provided solutions to fellow engineers facing design issues by troubleshooting, perform design analysis and root cause analysis

07/2021 – Present

Freelance Service Provider / Home-Based 3D Printing Service, Petaling Jaya, Selangor

- Collaborate with business partner to provide 3D printing service as a side project

06/2018 – 09/2018

Engineering Intern / Precision Control Sdn Bhd, Shah Alam, Selangor

- Learned about SCADA, HMI, PLC
 - Utilized Simatic WinCC, PCS7, Totally Integrated Automation (TIA), AutoCAD
 - Designed HMI along with logic programs of objects according to P&ID using WinCC
 - Designed TIA program and HMI for comfort panels
 - Simulated SCADA system using PLC Sim to ensure system works as programmed
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EDUCATION

09/2015 – 07/2019

MEng (Hons): Mechatronic Engineering / University of Nottingham, Semenyih, Selangor

- Graduated with First Class Honours
- Nott's Makers Club Event Officer (*In charge of organizing club events*)
- The Amaking Camp Organizing Committee (*Plan and organize activities and games for a 2D1N camp which engages underprivileged youth in trending technology learning (3D Printer, 3D Pen, Arduino)*)
- 3D Pen Workshop Organizing Committee (*Plan and organize workshop to educate students*)
- ACEMAS Event Team Committee and Games Coordinator (*Plan and organize itinerary and games*)

Main Academic Projects

- Modify and produce a **Delta 3D Printer to use pellets** rather than filaments as its raw material for 3D printing (*Final Year Individual Project*)
- Design and manufacture **Autonomous Robot for Single Palm Fruit Picking** in palm oil plantations (*Third Year Group Project*)
- Design and produce **Transfer Station** that transfers bobbins using pneumatic force

01/2014 – 12/2014

Australian Matriculation / Sunway College, Subang Jaya, Selangor

- Graduated with ATAR of 89.90

01/2009 – 12/2013

Sijil Pelajaran Malaysia / Sekolah Menengah Kebangsaan Bandar Utama (3), Petaling Jaya, Selangor

- Graduated with 7A+, 2A, 1A-
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VOLUNTEER EXPERIENCE

05/2016 – 06/2016

Wall Painting Volunteer, Educator / Shepherd Centre Foundation, Semenyih, Selangor