ADRIEL SEBASTIAN JOSEPH, ENGINEER

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LINKS

Portfolio, LinkedIn

PROFILE

An aspiring and dedicated graduate in Mechanical Engineering furnished with an excellent problem-solving skills, communication skills and leadership background, and an enthusiastic person able to work in a fast-paced working environment where I can utilise my knowledge and technical skills. Beyond that, very ambitious in working on Research and Development, Mechanical Designing, Artificial Intelligence and Machine Learning. Plus, have professional working experience as a Graduate Technology Development Engineer for 1 year and as an Automation Engineer for 11 months+.

EMPLOYMENT HISTORY

Sep 2023 — Aug 2024

Graduate Technology Development Engineer, Dyson

Senai

- Worked on the RDD Power System project developing ceramic heaters for the Dyson Hair Care product.
- My role is in the Back End team to prototype, design and develop the build to achieve the milestone and to do research on the parts owned for higher performance hence reducing cost.
- Worked on the Brazing and Nickel Sintering process plus have done analysis on the respective furnaces to improve the quality of the product.
- Done multiple rapid prototypes to proof the design concept and presented them using the SLA 3D printing.
- Have aligned with suppliers to manufacture my design and to purchase research based substances.
- Proficient in Siemens NX CAD software for designing, prototyping and analysis.
- Proficient in MATLAB, Minitab and Microsoft Excel for data analyses, visualizations, tolerance stack and CPK calculation.
- Have done cross-sectional study and analyses using the scanning electron microscope (SEM) machine.

Nov 2022 — Sep 2023

Automation Engineer, Pentamaster Corporation Berhad

Bayan Lepas

- Worked on project understanding and maintaining the sequence of PLC (Programmable logic controller) program in Siemens therefore able to implement the sequence to run the machine accordingly.
- Done PLC Setup, IO inspection, Barcode Scanner setup, Motor setup and Teach points (Festo and Oriental motors)
- Done hardware and software configuration.
- Worked with control and mechanical team to troubleshoot hardware problems, to improve machine design and machine efficiency hence able to improve the machine run time.
- Learned to solve problems by writing sequence in Siemens and Keyence.
- Created report and complete manual on the project done.

Nov 2021 — Feb 2022

Software Engineer Intern , Optergy Sdn Bhd

Kuala Lumpur

- Worked with a team of passionate engineers for 12 weeks as a Smart Building/Software Engineer Intern.
- Worked on Smart Building Project by creating test cases and scenarios for the created software called HEVEA.
- Configured the smart tablet for the Smart Building Project which is yet to be implemented in the smart building.
- Worked on AutoCAD to edit and label on the blue print of the smart meeting room, discussion room and personal rooms located in the smart building plus learn simple designing.
- Visited International School of Kuala Lumpur (ISKL) as site visit with purpose to check on the maintenance of the HVAC system in that smart building plus learn on the HVAC system.

Dec 2020 — Feb 2021

Mechanical Engineer Intern, Foresight Asia Pacific

Bayan Lepas

- Worked with a highly experienced engineers for 12 weeks as a Mechanical/Industrial Engineer Intern.
- Design a complicated 3-Dimensional tube according to the customer expectation with the Solidwork drawing given.
- Done a case study on the performance of different type of plastics when being fabricated using different process (e.g., routing, lathe).
- Done work of a costing engineer to price an object before being fabricated with a deep analysis of GD&T of the object.
- Worked on the Purchase Order (PO) and the Sales Order (SO).

Apr 2021 — Nov 2021

Undergraduate Researcher, Monash University

Subang Jaya

- Project Title: Designing cantilever-based sensors: A Modeling Approach.
- Worked under supervision on research topic "Microcantilever-based platforms as biosensing tools".
- The final aim is to develop a biosensor technology that is fully integrated, cheap, portable and reliable single platform, able to detect and identify simultaneously different molecules in real time with high sensitivity, even at the single cell and single molecule level.
- This program provided an early opportunity to experience a research environment and research group.
- Selected for the Undergraduate Research Opportunities Program (UROP) out of 200 candidates.

EDUCATION

Oct 2018 — Jun 2022

Bachelor of Mechanical Engineering (Honours), Monash University

Subang Jaya

Academic Record:

- CGPA : **3.692/4.0**
- WAM : **77.948 %**
- On track for **Second Upper Class Honours** (H2A)

Achievement:

- Faculty of Engineering Dean's Honour List 2019
- Certified Solidworks Associate in Mechanical Design scoring 225/240 marks in CSWA exam
- Champion for LED-based Smart Table Lamp Creative and Building Competition

PERSONAL PROJECT

Jul 2021 — Jun 2022

Heat transfer enhancement using curved fins in an annular flow domain with carbon-based colloidal suspension

Subang Jaya

- This research based on fluid mechanics and thermodynamics to enhance the heat transfer in heat exchanger instrument which has been used broadly in many engineering fields.
- An unique geometry of annular flow domain used for the heat exchanger and implement a surfboard curved fins in the passage to induce recirculation zone to enhance the heat transfer using an unique fluid named graphene nanoplatelet (GNP) nanofluid due to the thermophysical property.
- Total of 72 simulation study done with three turbulence booster, four fluids and six different fluid flowrate to achieve the hypothesis.

Jul 2021 — Nov 2021

Design Project - Designing a go-kart/ATV racing vehicle and the racing track

Subang Jaya

- The ambition of this project is to propose a Go-Kart company outline by designing and integrating the customised Go-Kart vehicle and racing track plus proposing a business plan to start the company.
- The vehicle is powered by an internal combustion engine (ICE).
- ANSYS, Solidworks and Matlab softwares has been used in building different system of the vehicle, FEA studies for analyzing the performance of the design plus CFD studies for the Aerodynamic and Thermodynamics analysis of the vehicle.

SKILLS

Ansys	Siemens NX
Solidworks	Minitab
Matlab/Simulink	PLC programming
Autodesk AutoCAD	Machine Learning
Computational Fluid Dynamics	Python
HTML/CSS/JavaScript	Heat Transfer/Heatsink
SQL	Prototyping
C/C++	Problem Solving

REFERENCES

References available upon request