



BEng, MPhil (Mechatronics), MEng (Engineering management)

Mechatronic Engineer
Design engineer
Mechanical engineer
Production engineer



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PROFESSIONAL SUMMARY

I am a creative and detail-oriented professional with 3 years of experience in Sri Lanka and China. As a mechatronics engineer with a master's degree in engineering management, I bring a versatile skill set that enables me to deliver innovative solutions. My multidisciplinary expertise allows me to seamlessly contribute across diverse engineering domains, including design engineering, manufacturing, production, quality assurance, and mechanical and electronic systems.

Mechanical design and development

Fluid dynamics

Circuit and PCB design

Microcontrollers, PLC

Electronics

Factory power systems

Object oriented programing

Machine Learning

Control Systems

CNC and Robotics

Prototyping

Intelligent Production Systems

Total Quality Management

Production Planning and Control

Engineering Economics

Plant Layout & Management

Operational Systems Management

Project Management

Enterprise Resource Management

Cost Optimization

Sustainable Design Principles

PROFESSIONAL EXPERIENCE

① MECHANICAL ENGINEER – Accurate dosing systems - SA

March 2025 - present

Responsibilities: Engineering drawings and modeling , Assembly line optimization, testing, mechanical design

Projects: Dosing system assembly.

② DESIGN AND MAINTENANCE ENGINEER - Japlan Diagnostic (PVT) LTD (Sri Lanka)

Jan 2021 – Oct 2022 (1y 10m)

Responsibilities : R&D, Detailed engineering drawing, CAD and simulation (FEA) , Medical equipment Installation and troubleshooting ,Preventive maintenance, Market analysis, QC, operator training

Projects: Centrifuge design, Defect prediction using QC data, Horiba machine installations, Tosoh machine installations

Achievements

- 100% customer satisfaction in 2 consecutive months. 97.5% overall.
- 4-time employer of the month
- Successfully developed a locally manufacturable centrifuge mechanism, potentially bringing the cost by 20%.

③ MAINTENANCE ENGINEER - Global Benchmark Lanka (PVT) LTD (Sri Lanka)

Jan 2020 – Jan 2021 (1year)

Responsibilities: Mechanical design, automation, QC, maintaining regulatory standards, preventive maintenance, Plant management, workforce management

Projects: Plant installation project, Startup automation project, Cooling tower design project

Achievements

- Automated the complicated startup process of the distillation plant using PLC increasing production by 35%
- Successfully commissioned the cooling tower which is still operational up to date
- Increased distilled oil clarity by 10% discovering optimum temperature for oil distillation
- Implemented a distillation process, which reduced energy consumption by 5%.

④ INTERN MECHATRONICS ENGINEER- Libo Heavy Industry Technology Co., Ltd. - China

Sept 2018 – Oct 2018 (2 months)

Responsibilities: R&D, Programing robot systems (FANUC 6 DOF automated tig welding robot) ,FEA (COMSOL)

Projects: Conical idler design, Setting up FANUC tig wielder robot arm, Safety risk identification

Achievements

- Received the "Best Presentation" award for proposing safety hazard improvements on the factory floor.
- Involved in developing the patented conical idler design which is a passive belt centering mechanism.
- Applied engineering concepts in real-world scenarios, gaining valuable experience within the mining community

ADDITIONAL SUPPORTING INFORMATION

EDUCATION

Master of Engineering Management (MEng) (GPA: 6.41/7.00)

2022-2024

University of South Australia (UniSA) - Adelaide, SA

Achievements

- *Golden Key International Honor Society Membership: Recognized for outstanding academic achievement, ranking in the top 15% globally, and awarded membership in the prestigious Golden Key International Honor Society in 2024.*
- *Design and development of a novel patient lifting mechanism for aged care.*

Master of Philosophy: Mechatronics Engineering

2021-2023

Shandong University of Science and Technology (SDUST) – Shandong China

Achievements

- *Research publication: Design and Development of a Novel External Pipe Crawling Robot ExPiRo, DOI:10.1109/ICRAE50850.2020.9310831*
- *Identifying hydraulic pump faults with vibration analysis research at SDUST*

Certificate: Business and Management (Credit transferred to UniSA) South

2022

Australian Institute of Business & Technology (SAIBT) - Adelaide, SA

Bachelor of Engineering: Mechatronics Engineering 3.46/4.00 GPA

2016-2019

Shandong University of Science and Technology (SDUST) – Shandong China

Achievements

- *Best Quadcopter design award (1st place) in Shandong Provincial inter-university robotic competition*
- *Research publication: Development of a Robotic System with Stand-Alone Monocular Vision System for Eco-friendly Defect Detection in Oil Transportation Pipelines DOI:10.1007/978-981-15-8131-1_10*

Professional affiliations

- Member of the Association of Professional Engineers Australia (Pending)
- Member of Golden Key International Honor Society Asia Pacific.

Languages

- English – Full professional (Advanced)
- Chinese – Limited working (intermediate)

Technical skills

- AutoCAD, Solidworks, Sketchup, ANSYS, COMSOL, SimScale, MATLAB, Octave, SIMULINK, Altium designer.
- SIMPROCESS, SPSS, GABI, SAP ERP, Microsoft office
- Python, C, Dart, MATLAB, HTML, G Codes
- THT/SMD Soldering, 3D printing, Lathe operation
- Arduino, STM32, PIC, Raspberry pi, latte Panda
- 6 sigma, Lean Agile, TQM, Kaizen, ISO9001

Certifications

- LearnX Python Certified developer
- IELTS all bands 7+ (Listening 9) overall 7.5

More on my website



Please find more about me here
🌐 www.cjshowcase.com

Referees available upon request