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Summary

- Over 15 years of experience in **Manufacturing IT**, specializing in **MES systems administration** and **software/hardware integration**.
- Proven expertise in **business intelligence solutions**, **database management**, and **system optimization** to enhance operational efficiency.
- Highly adaptable professional, effective both **independently and in team environments**.
- Strong interpersonal and communication skills, with a track record of **building and maintaining positive client relationships**.
- Motivated, hardworking, and continuously learning; recognized for **ambition, reliability, and strong work ethic**.

Education

- **Master of Computer Science & Information Engineering;** Jul 2010,
National Ji-Nan University, Nan-Tou, Taiwan.
- **Bachelor of Computer Science & Information Engineering;** Sep 2008,
National Ji-Nan University, Nan-Tou, Taiwan
- **Related courses:** Lab's system Administrator, NCU Library's reader service dept. Database Administrator, NCU computer center's Part-time Assistant.

Working Experience



IT Infrastructure & Application Sr Engineer, Thermo Fisher Scientific
May 2019 ~ present

Experiences:

- Successfully assumed responsibilities of **two resigned MES Systems Engineer roles**, ensuring uninterrupted operations and support.
- Oversaw **MES systems administration**, including performance tuning, system enhancement, maintenance, and real-time monitoring.
- Delivered **manufacturing business intelligence** and **reporting services** to improve operational visibility and decision-making.
- Maintained **IT server infrastructure** and provided **on-site field service support** across manufacturing operations.
- Acted as key **liaison with business stakeholders** to gather requirements, design solutions, and drive successful system implementations.
- Participated in **Thermo Fisher's Data Science Innovation Lab Hackathon**, applying **machine learning** to solve real-world business challenges.
- Designed and implemented a **High Availability module** to enhance MES system reliability and uptime.
- Developed a **user-friendly barcode Lot-Start web application** to streamline production processes.
- Established a **ServiceNow ticket workflow system** to improve IT service responsiveness and user satisfaction.
- Delivered and deployed **live OEE dashboards** and **Manufacturing KPI dashboards**, enabling operations teams to monitor and optimize productivity in real time.
- Served as **key driver and executor** of the **MES server upgrade and migration project**, ensuring minimal disruption.
- Conducted **Power BI** and **Power Query training sessions** for cross-functional users; recognized with a **Subject Matter Expert Award**.
- Appointed **Thermo Fisher Generative AI Ambassador**; conducted **Gene.AI training sessions** across multiple sites to promote AI adoption.
- Represented IT in **daily operational and weekly Senior Leadership Team meetings**, providing updates, resolving issues, and aligning technology support with business goals.
- **Introduced the "Vibe Coding" concept** to the site, **planting the foundation for modern development practices** and fostering a culture of continuous improvement
- Developed **custom modern web applications** for business users using **Node.js/Bun+Astro framework**, modernizing obsolete .NET applications.
 - o Notably led modernization efforts for [Eutech Instruments](#).
- Drove **digital transformation initiatives**, converting **paper-based batch records** to **electronic systems**, enhancing traceability and efficiency.

Technical Skills:

- **Programming & Development:** Oracle PL/SQL, Python, JavaScript/TypeScript, Node.js/Bun(Svelte, Astro), TailwindCSS, Golang, Lua
- **Machine Learning & Data Science:** TensorFlow, LightGBM, LSTM, Ultralytics YOLO, Google Colab, AWS SageMaker
- **Business Intelligence & Reporting:** Power BI, Microsoft SSRS, SSIS, Oracle APEX

Soft-skill:

- **Project Management (Leadership, Communication, Planning, Resource & Time Management, Risk Control)** Cross-functional Collaboration | Stakeholder Engagement | Continuous Learning | Innovation & Adaptability

Experiences:

In Tampines site

- ams Tampines fab startup pioneer IT member. 2 months overseas training in Austria to build connections with Austrian colleagues and transfer the IT systems to Singapore.
- Handles overall IT related topics, dealing with internal/external customers, vendors. To make sure the fab startup runs smoothly.
- IT infrastructure coordinator & project driver: Networking, Telephony, Projector, Printers, meeting room booking system, shop floor meeting point, etc.
- Enterprise office application integration driver. Outlook, SharePoint, ShareFile, etc.
- System administrator for overall MES application PROMIS,Xsite,Systema,SPACE,RMS,etc.
- Enterprise interface Bosch Inubit BPM (Business Process Management) developer.
- HR TMS (Time Management System) interface setup and maintenance.
- Interface operator of MES and ERP system (PROMIS SAP interfaces).
- Product Material Review Board(MRB), Process Change ReviewBoard(PCR) system setup.
- SAP portal SRM administration support.
- Tampines IT overall budget planning, allocation and tracking.
- Working as technical consultant of 5 IT members reports to the IT director.

In Ang Mo Kio site

- Enterprise MES system (PROMIS) Setup & maintenance.
- Production operator certification and training system project manager.
- Operator Electronic Assessment Management System project manager.
- Take part in SAP integration project (FIS to SAP), Heptagon to ams.

Skill sets:

- IT Business service tools (TibcoRV, QlikView, Bosch Inubit BPM, Oracle APEX, SharePoint).
- Project management. (Leadership, communication, planning, resource allocation, Time management, risk management).
- Customer relationship management. Ability to work with cross country people. Having a good relationship with internal/external counterparts.



Senior CIM Engineer, Computer Integrated Manufacturing, Globalfoundries Pte. Ltd.
October 2014 ~ June 2017.
Team size: 3

Roles:

- System Developer & System Analyst to provide solutions for enhancement.
- MES Applications operation support. Troubleshooting, bug fix, enhancement, monitoring.
- Define roadmap and conduct review with business owner.
- Develop plans and carry out patches / releases to the Staging and Production environment smoothly, without production impact.

Applications in charge:

Area Service: Interfaces between MES, EQP automation, and reporting team.

Focus on troubleshooting, bug fix, enhancement and monitoring the services, using C, C++, shell, Oracle database, OMQ, cronjobs.

CIMDirect : Manufacturing Shop floor Application (user friendly PROMIS GUI) for Production Users, using VB.NET / Visual Studio and Oracle database.

SLDBweb : An Engineering Quality Control Setup for Process and Equipment to enable CIM Run, using RHEL Apache-Java based JSP website with Oracle database.

ETest ETL : Take part in server migration project, from Unix to Linux,
Review the Cronjobs and ETLs (written in Shell, C, Perl, Java, python)
Perform migration and system compatibility testing.

Skill sets:

- Programming: C,Shell,VB,C#,Java,HTML,Javascript,CSS,SQL,Perl,python
- OS Platform: Unix, Linux, OpenVMS, HPUX, Windows
- Application: PROMIS,OMQ,PL/SQL Developer,eclipse,MobaXterm,Visual Studio,nginx,Tomcat
- Soft skill: Meeting skill set (Presentation, Communication, Problem solving driven)



Senior Engineer, Equipment Software Dept., CIM Engineering Div. I, AU Optronics Corporation, September 2010 ~ September 2014.

Roles:

- Support AUO's subsidiary Briview Inc. Develop a system for TV backend assembly lines to perform functional tests.
- Mura reduction system for LCD panel, which highly increase the yield and grade
- Solar module Manufacturing Execution System, including automation, process flow optimization.

Skillset:

- Software (VB, C#, C++, Java, SQL, Objective-C)
- Hardware protocol (PLC, RS232, USB, I2C, SPI, RJ45)

***** PROJECTS COMPLETED IN AUO *****

- Project Name: De-Mura System Client: AUO's production line (台灣, 廈門)
Duration: Jul 2013 to 2014 Role: **Developer / SA** Team size: 4
Platform: Windows, .NET Framework
Software used: Visual Studio, VB.NET, IBM WebSpare MQ, AUO's MCMQ, Oracle DB
Hardware interfaces: PLC, Ethernet protocol, I2C protocol, Canon Camera, Sony Camera
The project involved setting up a windows-based system for AUO's LCD production line, to reduce Mura Defect of the LCD panel. My role is a SA (System Analyst) in the team. Also, I was responsible for developing the drivers that connect the devices (pattern generator, Camera, PLC, etc.). It's a highly valued system which improves product yield.
- Project Name: TVSET TestController Client: Briview (廈門)
Duration: Sep 2010 to 2014 Role: **Developer / Trainer** Team size: 3
Platform: Windows, .NET Framework
Software used: Visual Studio, VB.NET, IBM WebSpare MQ, AUO's MCMQ, Oracle DB
Hardware Skill Set used: PLC, Ethernet protocol, USB, RS232, I2C, SPI protocol
This project involved setting up a windows-based system for Briview's production lines, to control the equipment automatic test the product (LCD/TV). I did the requirement gathering, specification, design, and released this system following the AUO's CMMI methodology. Also, there are two junior members under me in Xia-Men work as testing engineer and maintaining engineer.
- Project Name: Solarmio System Client: AUO's Solar module line (台灣, Slovenska)
Duration: Sep 2011 to Mar 2012 Role: **Programmer** Team size: 5
Platform: Windows, .NET Framework
Software Skillset used: Visual Studio, VB.NET, IBM WebSpare MQ, AUO's MCMQ, Oracle DB
Hardware Skill Set used: PLC, Ethernet protocol, USB protocol, RS232 protocol
This project involved setting up a windows-based system for AUO's Solar module lines, to control the equipment that produces the Solar panel. I work as a support personnel in this project, to fill up the temporary manpower shortage of the Solar team. My responsibility was to classify the product level and print out the label.

Qualifications & Certificates

→ Q Series PLC Integrated Network Program	Hosted by Mitsubishi	Oct-2010
→ Q Series PLC Basic Program	Hosted by Mitsubishi	Nov-2011
→ Q Series PLC Advanced Program	Hosted by Mitsubishi	Nov-2011
→ Q Series PLC CC-Link IE Control	Hosted by Mitsubishi	Nov-2012
→ AUO IQMS course	Hosted by CMMI Foundation	Aug-2010
→ PROMIS System administrator	Hosted by Applied Material	Jan-2019
→ Finance for non-finance Manager	Hosted by Epitrain	Feb-2019

Awards

- Applied Material PROMIS MES system administrator (Applied Material, 2019)
- 4% cycle time increase for whole fab (DPML from 2.5 to 2.4) (GlobalFoundries, 2017)
- AUO Tech Fair most voted award - Smart Factory project (AUO, 2013)
- Continues 3 years grade A in AUO

Programming Skills

Advanced	Python, Oracle PL/SQL, MySQL, VB.NET, C#.NET, JSP
Intermediate	JavaScript/TypeScript, C++, PLC programming, PHP, JAVA, Perl, C, Csh
Beginner	XCode(IOS), Fortran, Go Language

Language

Chinese	Fluent (Native)
English	Fluent
Malay	Intermediate
Cantonese	Fluent
Hakka	Intermediate