Yu-Xiang **Su**

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Education

- M.S., Information Technology Group / Department of Civil Engineering / National Central University, Taiwan
- B.S., Department of Civil Engineering / National Ilan University, Taiwan

Thesis

- Predicting the energy consumption of charging electric vehicles at buildings under the trend of energy transition in Taipei

Experience

Unikorn Semiconductor Corporation\ Process integration Engineer *2023/6 - Present*

1. Improve yield and enhance electrical properties, reduce costs and increase shipment volumes. Understand different customer needs and assist in effective and timely product shipments. Communicate and collaborate with process engineers.
2. Address abnormal events in the process immediately, improve defects through product knowledge and past experience, and work with other engineers to reduce defect recurrence and enhance process yield.
3. A Leveraged programming skills acquired during graduate studies to handle team data analysis, write VBA scripts, use SAS to reduce data processing time, extract data using EDA, and maintain KLA databases. Additionally, pursued online courses in DBA, ORACLE, SQL, and LINUX after work to strengthen technical skills.

Delta Electronics, Inc. \ Assistant Engineer *2020/11 - 2021/6*

1. Develop testing equipment programs and oversee equipment installation and maintenance.
2. Integrate software (LabVIEW) development with hardware (motors and other equipment) in terms of firmware.
3. Operate and validate electron beam equipment.
4. Identify and rectify causes of equipment abnormalities at the work site.

Near-Zero Energy Building Energy Simulation and Assessment \ research assistant

1. Assessed BEM-related materials for building lifecycle energy consumption and carbon emissions.
2. Wrote C++ scripts on the Revit platform to complete public EUI indicators and calculation formulas as per the project.
3. Conducted deep learning analysis on electricity and environmental data of a designated public building and evaluated the results.

Awards

- 2022, Institute for Information Industry / Researcher / Energy Simulation and Evaluation of Nearly Zero Energy Consumption Buildings | Main project: Building Net Zero Energy Consumption Promotion and Smart Electricity Demonstration Program, III and New Taipei City Government
- Monitoring and Data Presentation of Roof-Type Solar Panels: Utilizing Arduino and Building Information Modeling. Civil Engineering and Hydraulic Engineering, 49(1), 4-9.
- Best Paper Award, In The 25th Symposium on Construction Engineering and Management
- Scholarship of Department of Civil Engineering
- Terminal Scholarship of Department of Civil Engineering 109-1 / 110-1

Skills

- Semiconductor Process：
    1. Yield Improvement
    2. Root Cause Analysis of Defects
    3. Device Physics theory
    4. Optical Measurement Instruments
- Civil Engineering related：
    1. AutoCAD / Revit / ETABS analysis
- Programming：
    1. Data analysis and visualization
    2. Deep learning analysis and applications in information management
    3. Embedded systems, firmware programming, basic electronic circuits, Arduino, Node.js, MQTT for monitoring module development
    4. Linux CentOS RHEL 8 (Certification from Hahow)
    5. DBA - SQL Server database management (Certification from Hahow).

Autobiography

Hi ,I'm Felix, passionate about self-learning and turning these experiences into valuable assets, aiming to enrich each day.

Educational Background

- Hardware: Independently studied electronic circuit literature and collaborated on professor-led projects:
    1. Designed circuit boards to meet vendor requirements such as WiFi communication protocols, temperature and humidity sensors, and wind direction sensors. Successfully installed these on solar panels for power conversion monitoring.
    2. Simulated fire rescue shortest paths using XR, VR technologies with MRTK-Unity, reducing firefighter response times and enhancing safety.

- Software Completed courses in Python, C++, and Java, and undertook projects including:
    1. Environmental spatiotemporal data analysis and visualization - utilized Python for web scraping and text mining to analyze changes in travel destinations during the pandemic.
    2. Deep learning analysis and application in information management - used Jupyter and CNN for image recognition.
    3. Environmental disaster monitoring - developed monitoring modules combining embedded systems, firmware programming, basic circuitry, Arduino, Node.js, and MQTT.
- My thesis utilized machine learning to predict the future growth of electric vehicles and forecast overall electricity consumption. Additionally, I assisted professors as a teaching assistant in programming courses. With a solid foundation in these concepts, these experiences enable me to quickly adapt in the workplace and approach situations from multiple perspectives.

Work Experience

- **In 2023, I entered the semiconductor industry as a Process integration Engineer**
    1. Analyzed and resolved customer returns and electrical/process issues for photonic components (VCSEL/Micro LED) and microelectronic components (RF/WIFI filters). Effective communication, efficiency, and accurate judgment were key in ensuring timely, high-quality shipments
    2. Applied AI in defect recognition to reduce labor costs by 30% and decreased the time engineers spent on classification. Conducted data analysis, wrote VBA scripts to reduce data processing time, and maintained KLA databases. Pursued additional online courses in DBA, ORACLE, SQL, and LINUX after work to enhance technical skills.
- **In 2021, I interned as an Assistant Engineer at Delta Electronics**
    1. Tested product stability using C and Labview, soldered circuits, modified product designs, and introduced products to the market. Executed system and equipment automation to improve operational efficiency, product quality, and efficiency by 80%.