# Phan Minh Dang Khoa

## Senior Engineer
## Automation & IoT Developer

I am an Automation Engineers and IoT Developers with expertise in building automation systems and smart lab technology. Skilled in programming, system integration, and data visualization, especially using Power BI. Proven ability to increase productivity, reduce costs and improve safety through innovative solutions.

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Binh Duong, VN

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## WORK EXPERIENCE

### Senior Lab Engineer
Milwaukee - Techtronic Industries TTI

10/2021 - Present                    Binh Duong, VN

- Managed, and troubleshooted the VN Power-Tool Reliability Test Lab software and systems.
- Developed test machines using LabVIEW
- Driving continual improvements and efficiencies in operational processes to enhance overall performance and productivity, using VBA, Power BI / Automate, and Python.
- Collaborated with Global Business System on Lab Management System and IoT projects, ensuring seamless integration and efficient operations
- Worked with global Automation Test System to implement reports using data from NI LabVIEW and PLCs, improving data analytics and reporting capabilities
- As a Reliability Engineer, I developed comprehensive test plans, managed and resolved issues, and finalized detailed test reports for the global team. My responsibilities spanned New Product Development, Transfer, and On-Going mass production projects, ensuring product reliability and adherence to high-quality standards.
- Trained Test Engineer on testing methods and equipment usage.

### R&D Sepcialist
Fablab Eastern International University

06/2020 - 10/2021                    Binh Duong, VN

- Deployed demo projects related to IoT and automation for training purposes, increasing hands-on learning experiences
- Developed and upgraded teaching kits for STEM courses, enhancing learning effectiveness
- Compiled user manuals related to pneumatic and robotics systems, facilitating user understanding and utilization
- Popularized new technology and supported staff in solving programming issues, fostering a culture of innovation and knowledge sharing

### Production Technician
TetraPak

02/2019 - 05/2020                    Binh Duong, VN

- Applied programming to automate basic tasks such as data entry and data management, streamlining operational processes
- Increased machine capacity by applying WCM manufacturing tools, resulting in a 10% improvement in production efficiency
- Worked on laminating process, conducted quality control, and optimized processes by raising improvement suggestions, ensuring product quality and efficiency
- Studied the operation and maintenance of the laminating process, leading to enhanced understanding and improved maintenance practices

## SKILLS & COMPETENCIES

- **Programming Languages:** C, C++, C#, JavaScript, Python
- **Data Visualization:** Power BI, Grafana
- **Data Sources:** APIs, RESTful, databases,Excel, parquet files, CSV files, JSON, XML
- **System Integration:** API, RESTful Services, Message Queueing Systems, Middleware Technologies, Data Transformation and Mapping
- **Automation & IoT:** PLC, SCADA, HMI, Industrial Networking, Microcontroller, Sensor Integration, IoT Protocol, Embedded, Web application, Infrastructure, DevOps
- **Soft Skills:** Long-term thinking, Process Optimization, Self Learning, Teamwork, Time Management, Creative Problem Solving

## Main Projects

- **Milwaukee (2022-2024):**
  - Developed LabVIEW programs creating automatic reports saving 99% time
  - Design Power BI for departments to automate the reporting process on human resources or projects progress, sample testing progresses saving 94% time
  - Created real-time dashboards on PowerBI/Grafana
  - Collected environmental data and integrated it with non-IT machine data for monitoring and notification
  - Improving systems and software for end users by working with IT, automation, and global business system teams

- **Eastern International University (2021):**
  - Autonomous smart warehouse system with 1400 slots
  - Created a Python library for micro:bit to integrate with self-built hardware

- **Tetra Pak (2019-2020):**
  - Optical character recognition on UWP with C# and Microsoft Graph API, speeding up and reducing errors during manual data entry
  - Developed a full-stack web application for managing ideas from submission through approval and implementation

## ACHIEVEMENTS & CERTIFICATES

- 2nd prize Gemba Kaizen Back Pack Blower Fixture saving 20k USD (Milwaukee 2023)
- Bachelor of Automation and Control Engineering from Eastern International University
- Ielts 6.0

## INTERESTS

- Internet of things
- AI
- Guitar
- Technology news
- Robotics
- Advanture