Phurin Nararat

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EDUCATION

KASETSART UNIVERSITY Chonburi, TH

Bachelor of Engineering, Robotic and Automation Systems Engineering. *April 3, 2023*

Graduated GPA: 3.65 (Achieved First Class Honors)

Thesis: IMU-Based Motion Capture Using Madgwick Filter with 3D Visualization for Robot Teleoperations

Relevant Coursework: Digital Circuits and Logic Design, Robot Structure and Machinery Design, Machine Vision and Applications in Automation System, Industrial Automation System Design, Fundamentals of Robotics, Artificial Intelligence for Robot, Smart Embedded System in Robotics, Autonomous Mobile Robots

EXPERIENCE

SOMBOON SIASUN TECH CO., LTD. Samut Prakan, TH

Automation Engineer *Jun 2023 – Jul 2024*

- Installed and wired electrical components for machines in automated storage and retrieval systems, ensuring optimal functionality.
- Programmed PLCs and user interface controls (HMI) tailored to end-user requirements, enhancing operational efficiency.
- Integrated warehouse control and management systems with customers' existing infrastructures, streamlining overall workflow.
- Conducted thorough hardware and software testing to validate system performance and reliability.
- Trained customers on system operation and maintenance, improving user competency and reducing support needs.
- Managed the go-live process, closely monitoring initial performance to ensure a smooth transition and resolve any issues promptly.

MITSUBISHI ELECTRIC FACTORY AUTOMATION (THAILAND) CO., LTD. Bangkok, TH

Internship *Aug 2022 – Nov 2022*

- Researched and documented SCADA design techniques using ICONICS GENESIS64 software, facilitating knowledge sharing within the team.
- Developed and delivered user manuals tailored to customer requests, ensuring comprehensive support and guidance.
- Designed SCADA systems based on specific requirements.

ACHIEVEMENTS

PUBLICATION IN ENGINEERING JOURNAL IEEE

IMU-Based Motion Capture Using Madgwick Filter with 3D Visualization for Robot Teleoperations *July 16, 2024*

- Developed an arm motion capture system with 3D visualization for robot teleoperation using MARG sensors (accelerometer, gyroscope, magnetometer).
- Integrated the motion capture system with MQTT communication protocol to transmit real-time orientation data for robot arm control.
- Conducted experimental tests comparing IMU and MARG modes, demonstrating superior performance of MARG mode in terms of accuracy.

SKILLS & INTERESTS

Tech: TypeScript, Tailwind CSS, React, Vite, Next.js, Node.js, Express, Go, Python, MongoDB, Redis, PostgreSQL, MySQL

Tools: Visual Studio Code, Figma, GitHub, Git Page, Vercel

Language: Thai (Native), English (Business)

Interests: Angular, GCP, Docker, and more in full stack development field.