## Personal Information

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| Name: | Chin-I Feng |
| Date and Place of Birth: | XX.XX.1996, Taiwan |
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| Website: | https://cfeng-dev.github.io |

## Skills

- JavaScript | Python | C | C++ | C# | Java | Git | Docker | Unit-Testing | Jest | Raspberry Pi | STM32
- MATLAB | Simulink | LTspice | EMPro | Azure | ThingsBoard | Node-RED | Grafana | InfluxDB | MQTT
- Embedded Systems | FreeRTOS | Chinese (native), German (fluent), English (upper-intermediate)

## Experience

**Bachelor's Thesis in Time Series Analysis**, HTWG, Konstanz, DE          05/2024 – 07/2024
- Implemented a neural network (LSTM using PyTorch), a decision tree model (XGBoost), and a statistical model (ARIMA) to forecast electricity consumption at Fondium's forming facility in Singen, Germany
- Processed raw data with Pandas and NumPy to enable efficient model training with Scikit-learn, reducing training time by 40% while maintaining the same prediction accuracy
- Developed an algorithm that improved production planning and reduced electricity costs by 5.48%, by shifting output from high to low electricity pricing periods

**Programming Tutor**, HTWG, Konstanz, DE          10/2023 – 01/2024
- Supported and mentored over 15 students in learning C programming language
- Assisted the professor with exam preparation, administration, grading, and feedback

**Software Development Intern**, Hoval, Vaduz, LI          09/2022 – 02/2023
- Developed software and electrical applications for heat pump systems
- Optimized Modbus scripts using JavaScript by modularization, resulting in a 66% reduction in query time and a 73% reduction in component configuration time compared to the previous tool
- Created over 20 unit tests with Jest for a heat pump configurator to ensure quality assurance

## Education

**Master of Engineering**, HTWG, Konstanz, DE          10/2024 – present
- Major in Electrical Systems
- Expected graduation: 08/2026

**Bachelor of Engineering**, HTWG, Konstanz, DE          10/2019 – 08/2024
- Major in Electrical and Information Technology with IT specialization and electives in Machine Learning

## Projects

**Wind Tracker IoT**: Developed an embedded system for real-time monitoring of wind conditions with an interface via Modbus RTU 485 and data transmission via MQTT in JSON format

**Clustering Analysis**: Applied k-means and DBSCAN algorithms for clustering on unlabeled data