CHRISTOPHER LIEM

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EDUCATION

Undergraduate of Electrical Engineering & Automation *June 2021*
Tsinghua University, Beijing, China

WORK EXPERIENCE

Undergraduate Research Assistant - Intelligent Fault Detection and Health Assessment of Photovoltaic Systems | Tsinghua University, Beijing, China *Oct 2020 - Jun 2021*

- Designed, developed and verified a metaheuristic approach to create performance prediction models of photovoltaic systems in MATLAB
- Created an online fault monitoring implementation of photovoltaic systems using the XGBoost machine learning algorithm in Python
- Trained a neural network for fault detection in photovoltaic systems
- Established procedures for analyzing and interpreting simulation results

Summer Internship | PT AIM, Semarang, Indonesia *August 2020*

- Designed and implemented a program on Python to automatically update inventory of raw materials, reducing time spent by 97%
- Completed periodic laboratory analysis and product quality assurance

Summer Internship | WanTCom Inc, Chanhassen, MN, USA *Jun 2019 - Aug 2019*

- Trained in materials and components, industry standards, test equipment operation and product development and manufacturing procedures
- Monitored the electrical characteristics of various amplifiers from the assembly line to ensure acceptable quality standards
- Assembled a low noise amplifier for an existing customer and established a plan to test performance and verify adherence to electrical specifications

Summer Internship | Tsinghua Sichuan Energy Internet Research Institute, Chengdu, China *August 2018*

- Collaborated with project members to successfully convert an analog rotameter to a digital version using Python and the Google AIY Vision Kit
- Decomposed an image processing problem and utilized MATLAB tools to independently develop an analytical solution

SUMMARY OF SKILLS

Programming | Python, MATLAB, Java, C, Verilog HDL
Simulation Software | AutoCAD, Solidworks, NI Multisim, Simulink
Languages | English, Mandarin Chinese, Bahasa Indonesia

PROJECTS

Designed a solar tracker in C using the MSP430 microcontroller

CERTIFICATIONS

Neural Networks and Deep Learning by DeepLearning.AI *April 2021*
Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization by DeepLearning.AI *July 2021*