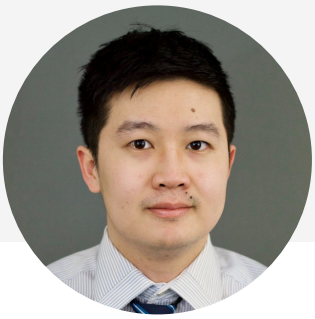
CHUN-YU WU

DATA SCIENTIST



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PROFILE

I am a Data Scientist with Industrial Engineering background and 3+ years of experience using systems modeling and simulation, operations research and machine learning techniques to solve challenging problems. Passionate about deep neural network.

SKILLS

PROGRAMMING

- Python, R, C/C++, SQL, Matlab, Julia

DATA SCIENCE

- TensorFlow, Scikit-learn
- seaborn, Matplotlib

INDUSTRIAL ENGINEERING

- Simul 8, AMPL, AutoCAD

OTHERS

- Git, MS office, MS Visio

EDUCATION

MS IN INDUSTRIAL AND SYSTEMS ENGINEERING

Binghamton University

July 2018 - May 2020

BS IN INDUSTRIAL ENGINEERING

Thunghai University

Aug 2012- June 2016

EXPERIENCE

REASERCH ASSISTANT

Binghamton University

June 2020 - June 2021

- Developed the research project of automatic CT scan diagnosis for COVID-19 via transfer learning .
- Organized research articles and materials associated with research projects.

INTERN

Genius Electronic Optical Co., Ltd.

July 2015 - Aug 2015

- Developed LED manufacturing process simulation model via Simul 8.
- Simulated manufacturing process and identified the bottleneck of process via productivity efficiency.
- Provided solutions of productivity improvement to increase overall efficiency and cost reduction by resource allocation optimization.

INTERN

Sanneng Bakeware Corporation

Dec 2014 - May 2015

LANGUAGE

- Chinese - Native
- English - Fluent

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- Set up standard operation procedure (SOP) and standard workforce of workstations in packaging department.
- Developed packaging process simulation model and provided efficiency improvement plan via resources allocation optimization.
- Assisted products packaging and monitored inventory level.

PROJECT

INFORMS 2020 QSR DATA CHALLENGE – CT SCAN DIAGNOSIS FOR COVID-19

- Designed CT image pre-processing and data cleaning pipeline to improve classification performance.
- Developed a ResNet50 transfer learning model to classify COVID-19 cases with Python, and the accuracy of classification model reached 96%.

SHORT SINGLE LEAD ECG CLASSIFICATION BY CONVOLUTIONAL NEURAL NETWORKS

- Developed ECG signal pre-process using Python to extract heartbeats from ECG and created a feature set of heartbeats.
- Designed time series classification of Atrial fibrillation via 1D convolution neural network classification model and Image classification of Atrial fibrillation via 2D convolutional neural network classification model with TensorFlow framework.

SYNTHESIZE PLAUSIBLE ECG SIGNALS VIA GENERATIVE ADVERSARIAL NETWORKS

- Created Generative adversarial networks model to generate realistic ECG signals

OPTIMIZING PATIENT FLOW VIA RESOURCES ALLOCATION IN AN EMERGENCY DEPARTMENT

- Designed and developed emergency department simulation model using Simul 8 to simulate patient flow.
- Identified the bottleneck of the emergency department and provided the improvement plan by optimizing resource allocation.