

# Siou-Jhih Guo

SYSTEM / SOFTWARE ARCHITECT · DATA SCIENTIST

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## Education

### TKU (Tamkung University)

New Taipei City, Taiwan

M.ENG. IN COMPUTER SCIENCE AND INFORMATION ENGINEERING

Jan. 2017 - Jan. 2019

- Graduation Thesis : Let Machine Read Candlestick Charts Like Human Beings
  - Forecast trend of price by constructing deep learning based system using Convolutional Neural Network and Recurrent Neural Network to analyze candlestick charts.
- Developed Spark Cluster Constructor to quickly construct spark cluster in container on Web-GUI for purpose of teaching, based on Django 1.11, Docker-swarm, Docker-compose and Docker-API.
- Constructed Hadoop cluster for purpose of teaching based on HDP(Hortonworks Data Platform).
  - Wrote Ansible Playbooks for deployment and management.

### TKU (Tamkung University)

New Taipei City, Taiwan

B.ENG. IN COMPUTER SCIENCE AND INFORMATION ENGINEERING

Sep. 2012 - Jun. 2016

- Graduation Project : VoIP over SDN(Software Defined Network)
  - Demonstrate flow-controlling ability of SDN which can improve performance of network-sensitive applications such as VoIP.
  - Constructed physical network infrastructure by Floodlight and OpenvSwitch 1.6, based on OpenFlow 1.3.
- Constructed OpenStack (Kilo) for private cloud of Department of CSIE
  - Constructed Nova(computing), Glance(image), Horizon(dashboard) and Keystone(identity).
  - Based on Legacy Network of OpenStack.

## Work Experience

### Bo-Ning Tech. Corp.

Feb. 2017 - PRESENT

DEVELOPMENT OPERATOR

Hsinchu, Taiwan

- Constructed CI/CD pipeline based on Drone.
  - Containerized services for easier deploying and testing.
  - Integrated Drone and GitLab for testing.
  - Constructed Sonatype Nexus Repository as artifact repository.
- Constructed monitoring system for services.
  - Used Elastic Search and Fluentd for collecting logs for services.
  - Used Kibana to visualize and generate statistic reports.
  - Hooked monitoring system with Slack for alarm.
- Managed cloud infrastructure(GCP) and container cluster (Docker Swarm).

### IChen Corp.

Taipei, Taiwan

SOFTWARE ENGINEER

Sep. 2015 - Feb. 2017

- Constructed VoIP server for intercom system of parking lots based on FreeSwitch 1.6, and developed client on Raspberry Pi in Python and C-Language.
- Designed self-service system for parking lots to allow customers parking vehicles and paying by license plates without human parking officers.
  - Developed device-controlling framework to allow controlling RS-232-protocol-based devices by TCP/IP in python.
  - Developed automatic pay station based on PyQt5, device-controlling framework, and using RESTful API for uploading accounts.
  - Developed access management system based on device-controlling framework, using C# to control third-party license plate recognition system, and uploading access information through RESTful API.
- Designed self-service system for restaurants to allow customers ordering and paying without human receptionist.
  - Developed automatic pay station based on Tkinter, device-controlling framework, and using RESTful API for uploading accounts.
- Managed infrastructures(GCP and OpenVPN) and CD-chain for account and CRM server for self-serve system for parking lots and restaurants.
  - Constructed GitLab for source code control.
  - Wrote Ansible playbooks for deployment and management.

### Leap Electronic Co., Ltd.

Taipei, Taiwan

INTERN SOFTWARE ENGINEER

May. 2014 - Sep. 2014

- Developed IC-burning driver by C-Language and assembly language for IC-burner produced by Leap.
- Developed driver for Atmel-ATtiny45 and Atmel-AT89C51.

### Microsoft Corp.

Taipei, Taiwan

STUDENT PARTNER

Jun. 2013 - Sep. 2013

- Developed Windows 8 Store Applications and Windows Phone 8 Applications by C# and Blend.
- Gave speech of introducing Windows 8 to promote Windows 8 around universities in Taiwan.

## Hallblazzar : Developer's Journal

FOUNDER & WRITER

Medium

Mar. 2018 - PRESENT

- Record progress and solutions of encountered problems while developing projects.
- Impressions and notes of newly learned knowledge and technologies.

## Deep Candlestick Predictor : A Framework Toward Forecasting the Price Movement from Candlestick Charts

SIOU JHIH GUO, CHIH-CHIEH HUNG, AND FU-CHUN HSU

Taipei, Taiwan

Dec. 26th-28th 2018

- PAAP'18 - The 2018 International Symposium on Parallel Architectures, Algorithms and Programming

## Let Machine Read Candlestick Charts Like Human Beings

SIOU JHIH GUO, CHIH-CHIEH HUNG, AND FU-CHUN HSU

Yokohama, Japan

Nov. 12th-14th 2018

- IDAA 2018 - International Workshop of Intelligent Data Analytics and Applications, Joint with JSAT International Symposium on AI