

# Isaac Teoh Yi Zhe

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Sample work: <https://github.com/isaacteoh25/Neural-Network>

Nationality: Malaysian



## **EXPERIENCE**

### **Software Developer at Medisys Innovation Pte Ltd, Singapore, 9/2018 ~ 11/2018**

I was in an implementation team. I was assign the task of going from clinics to another to copy the exe file to clinics and learn how to use the software in order to teach the clients in using the software.

### **Business Process Analyst (Contract) at Keysight Technologies, Penang, 9/2017 ~ 9/2018**

I was in a team that was responsible in developing automation tools with access vba, excel vba and fom system, vb.net webform that can extract, delete, update, import and export data for the end user. I led an effort to build tools in helping the users to complete their task faster. My responsibilities included the initial research, planning and managing the project, designing the feature, testing, fixing bugs, documentation and installing.

### **Software Developer (Trainee) at Micro Modular System Sdn Bhd, Penang, 2/2016 ~ 8/2016**

Responsible in developing log compiler server using asp.net for processing of error uploaded in .txt format generated from machine. Developed Mac Adam Binning wpf page for discerning of color difference within the CIE 1931 to produce a consistency of color in the LED.

## **EDUCATION**

**Universiti Sains Malaysia**, February 2020 – Master of Science (Computer Science)

**University Malaysia Sarawak**, – Bachelor of Computer Science (Computational Science)

## **LANGUAGE PROFICIENCY**

English, Chinese, Malay, Cantonese

## **TECHNICAL SKILLS**

Experience in Business Analysis, Analytics/Statistics, and Software Engineering.

Technical Tools:

- Machine Learning/ Computational Intelligence (Python with NumPy, Keras and Pandas)
- Statistical Analysis: Minitab
- Programming Technologies: MATLAB, JAVA, C#, C++, C, vb.net, Sql Server, Oracle
- Programming Technologies, front end: JavaScript, HTML/CSS, asp.net, wpf/ win Forms
- Automation tools: vba Macros using Access and Excel
- Forensic Analysis, IOT and some basic network protocols

## **PROJECTS**

### **Fuzzy-Genetic to solve 3-CNF Satisfiability Problem, November 2019**

As a mini project, the hybrid fuzzy-genetic and genetic algorithm using flipGA is tested with 10 different benchmarks that contain 20, 50 and 70 variables are required to solve the 3-CNF Satisfiability problem. Both algorithms are compared based on the success rate and the number of generations in solving the problem. Both genetic algorithm and fuzzy genetic is able to solve all the satisfiability problems. There are not much improvement in the hybrid algorithm even when comparing the number of generation used by the algorithms to solved the problem. Developed with python.

### **ELANFIS with modified micro genetic algorithm for mental workload prediction, February 2019**

As a dissertation, there's a need for mental workload prediction among the knowledge worker. The prediction uses a deep learning algorithm using Extreme Learning Adaptive neuro-fuzzy inference system (ELANFIS) that is optimised with the integration of Particle Swarm Optimisation (PSO) into the micro genetic algorithm. Data cleaning and processing is done using Python. The algorithm is found to have improvement of 6.0665 for Mean square Error (Regression) in its prediction after comparing with ELANFIS. Built with MATLAB.

### **Solving Minesweeper using Tank algorithm (backtracking), March 2019**

As an assignment, there's a matrix of squares appeared with size of row x column. When opening squares with hidden mine, the game is lost. If, there would be a number from one to eight, there tell us how many mines are hidden under the eight adjacent squares. To win the game, the system must flag all the mine and open all square without the mines. The tank algorithm, a backtracking method and heuristic method were used to solve the NP-hard problem. The algorithm solve all sequence of minesweeper. Developed using java.

### **REFEREES**

Name: Dr. Pantea Keikhosrokiani

Lecturer of Faculty Computer Science and Information Technology for USM

Position: Supervisor for Dissertation

Tel: 0174240196

Email: pantea@usm.my

Name: Mr. Bao Yadong

Managing Director of Medisys Innovation Pte Ltd

Tel: 6598539722

Email: baoyd@medinno.com

Name: Yeoh Kin Wei

Position: Supervisor in Keysight Technologies

Telnet: 6805520

Email: kin-wei\_yeoh@keysight.com

### **Hiring Reasons**

Learned statistics, multivariable calculus, operational research, data structures, software architecture, and multiple algorithms as a computer science student in UNIMAS and USM. Many of the testing of different machine learning algorithms are done in Weka. Eager and passionate to learn new skills and knowledge for self-upgrade. Though I'm may not be very experienced in Machine Learning job role as I only learned it recently from the university. So, let me make a promise that I will work hard and not let down those who put their trust in hiring me.