



Looi Yih Foo



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Summary

Self-taught full stack web developer, machine learning student, and experienced chemical engineer with demonstrated problem-solving, leadership, communication skills within multicultural environments. Seeking a junior developer position to work on digital solutions that give an edge to businesses. Willing to travel.

Known languages and frameworks

Machine learning packages: DeepLearning4J
(certified by Forward School)

Front end: React, React-Router, Javascript, HTML, jQuery, Redux

Back end: Express, PostgreSQL, SQLite, Firebase db, Docker, CircleCI, Python, Java

Testing: Enzyme, Jest

Mobile: React Native

Styling: CSS, Bootstrap, MaterialUI

APIs: HERE data hub, Leaflet, Google Maps, Bing Image Search, Dialogflow

Cloud deployments: Heroku, Azure, Firebase

Coding projects

faceMaskDetector ([Github](#))

Processes webcam, mp4 video, and images to determine if subject(s) are wearing a face mask.

melanomaDetector ([Github](#))

Determines if dermatoscope images show melanoma. Entry for [SIIM-ISIC melanoma challenge](#)

Marketsurveyapp - Ongoing ([Github](#))

Web and mobile-based platform for collecting market data

libraryWebsite-React ([Github](#), [Deployed website](#))

A new spin on the OPAC system today's libraries with the interactivity of Goodreads.

Memefinder ([Github](#), [Deployed website](#) [1] [2])

Find, copy, and download memes from anywhere

Coding projects –cont'

movieRecommender ([Github](#), [Deployed website](#))

Suggests movies by calculating a match score using user-weighted criteria.

Competitions participated

Map your world! – HERE

Mapathon

Oct – Dec 2019 ([Github](#), [Deployed website](#), [Entry](#))

Global hackathon on using maps for solving local issues. Worked as a pair to gather data, code and present map of Malaysia's public healthcare system and status. Map features isochrones, automatic feature-count, and self-generating colour gradients. Finished top 10.



NASA Space Apps Challenge 2019

19-20 Oct ([Team](#), [Github](#), [Deployed website](#))

Entered 'Spot That Fire 2.0' challenge. Using data from NASA's MODIS satellite, developed working mobile reporting app, web-based info and recruiting platform, and physical fire signalling prototype under 48 hours in team of 5. Finished top 10 among 165 teams



Competitions participated –cont'

**HP Mars Home Planet
(Engineering category)** June
2017 ([Entry](#), [Winners
announcement](#))



Global design challenge to support 1 million people in Mawrth Vallis. Submitted winning process designed to turn Martian air and water into rocket fuel (LNG +LOX), drinking water and breathing air.

Work experience

Remote Operation and Control Engineer

Linde ROC Sdn Bhd
Jan 2017 - present



- Remote production operator of air separation and LNG plants throughout Asia and Oceania with production capacities of 45 to 300 TPD.
- Handles process monitoring, load change, start-up and shutdown together with team members from Malaysia, South Pacific.
- Provide engineering assistance for site teams on the ground during maintenance, upset investigation, and supply scheduling

Achievements:

- Identified early and led action to correct under-performance of chiller unit and adsorber unit. Used Proficy Historian data as basis for calculating performance deviation and performing linear regression. Action taken prevented CO2 breakthrough and downtime from coldbox thaw.
- Created trends that automatically calculate process parameters using Proficy iFix for monitoring of over 200 process parameters from 20 chemical plants.
- Pushed improvement to plant automatic start system by coordinating feedback from station engineers with action by site PLC programmers.
- Proposed and implemented alarm deadbands to stop nuisance alarms from product storage. This prevented hundreds of AUD in lost product from missed high storage level alarms.

Work experience – cont'

- Planned and launched two Engineering Management of Change (EMOC) plans to save 6 hours during plant start-up by correcting improper trip set point and adjust alarm responsible for several thousand nuisance alarms when plant is plant shut down.
- Authored procedures for plant operations and emergency response, post-shutdown checklists, load-change setting guide, and training presentations for new engineers.
- Improved Microsoft Excel-based automated monthly plant report template by adding auto-updating parameters and removing junk data

Publications

- Data-driven plant operation with the Proficy suite (LinkedIn articles [part 1](#), [part 2](#))
- Determine gas chiller performance using historical data ([LinkedIn article](#))
- Simple plant modelling in Microsoft Excel with trends generated from scatter plots made with plant data ([LinkedIn article](#))

Education

MSc in Chemical Engineering

Sep 2015 – Feb 2017
University of Nottingham



- Thesis research published in Journal of Food Processing and Preservation ([Looi et al, 2019](#))
- IChemE accredited, 1st class honours.
Sponsored by MyMaster (MOE Malaysia)