Nicklaus Choo

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EDUCATION

CARNEGIE MELLON UNIVERSITY, PITTSBURGH, PA, USA **Aug 2018 – expected May 2022**

Major Bachelor of Science in Computer Science **Fall 2018 GPA** 3.27 | **Spring 2019 GPA** 3.74

PROJECTS AND EXPERIENCE

BOSCH ASEAN | Linux System Engineer Intern (DevOps) • **Singapore** **May 2019 - Aug 2019**

- Created efficient searchable user interface for developers to install their chosen ISO file via network boot (HTA, Jinja, JavaScript) from internal servers
- Enabled Jenkins server to run two ISO builds in parallel (1 executor, 2 slaves) for testing via dynamic port allocation
- Enabled automatic mounting of QEMU disk on Jenkins server to extract logs on initial startup post-installation for quicker debugging on failed build pipelines (Bash)
- Created a package to automatically test newly installed ISO files on physical and virtual machines for standard functionality such as web and email access and having the latest security/proxy configurations (Bash, Python)
- Implemented Jenkins pipeline build-steps modification for quicker deployment testing (via allowing the possibility to bypass ISO installation on ram disk, which reduces testing time from 20 mins to 1 min)

SHEET MUSIC ASSISTANT **Nov 2018**

As a final term project for my 15-112 programming class, I created a Python application built in TkInter that utilizes optical and audio recognition to read sheet music PDFs. Once read, the application displays the sheet music. It can then either play out the sheet music or listen to a user play from the sheet music in real-time and flip the page when necessary.

EYEOTA PTE LTD | Data Analytics Intern • **Singapore** **Dec 2017 – May 2018**

- Automate data cleaning and utilized Levenshtein distance, regex on text data from programmatic buy-side platforms to classify advertiser and buyer data for the business analytics team to track audience data sales
- Extract advertiser behavioral trends such as target demographics via web-scraping and from buyer data
- Automate update process of daily, weekly, and monthly revenue generated from audience data sales
- Automate formatting of .csv files of audience data sales across different programmatic platforms such as Google DoubleClick Bid Manager, Adform, and Appnexus, for use in further data processing

SINGAPORE ARMED FORCES | Platoon Sergeant, Transport Formation • **Singapore** **Jan 2016 – Nov 2017**

I proactively automated daily vehicle accounting (available, under repairs, loaned out, on missions) of over 20 vehicle types and 400 individual units. This improved count time from 45 mins to 5 mins. I also implemented an intuitive soldier human resource forecast and daily attendance system to quickly track soldier movement to drastically speed up administrative tasks.

A*STAR SIMTECH RESEARCH | Machine Learning Research Intern • **Singapore** **Jun 2014 – Dec 2014**

Selected as 6 of 1,140 students in my high school, Hwa Chong Institution, for a 7-month machine learning research internship at the Agency for Science, Technology and Research, Singapore Institute of Manufacturing Technology (A*STAR, SIMTech). Developed a MATLAB system utilizing partial least squares regression, extreme learning machine, and multiple linear regression to predict ink cartridge lifespans and remove the need for multiple destructive batch-testing.

AWARDS & HONOURS

HWA CHONG INSTITUTION (HCI) – HIGH SCHOOL | SINGAPORE **Jan 2012 – Dec 2015**

JUNIOR COLLEGE 1 - 2 (GRADE 11 -12)

Extra-Curriculars Elected Music Director of HCI String Ensemble. Planned music syllabus for outreach programs. Proactively arranged music for graduation concert. Sold-out performance to HCI's auditorium of 300 audience.

Academics 'Outstanding Student Award' for having strong leadership, academic excellence, and outstanding moral conduct. Circa top 10% of the cohort receive this award in Junior College 2 each year.

TECHNICAL KNOWLEDGE

Python | Bash | C | SML | Ansible | Docker | Jinja | VBA | HTML | CSS | JavaScript

COMPUTER SCIENCE COURSEWORK - FALL 2019

- 15-213 Introduction to Computer Systems
- 15-251 Great Ideas in Theoretical Computer Science