

Andric Ang

Data Scientist

cirdna.github.io

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Professional Summary

"A Year 3 full time student currently pursuing a Diploma in Applied Artificial Intelligence and Analytics in Singapore Polytechnic. Some skills I have acquired are data analytics, data pre-processing, full stack web development, machine learning and deep learning. I am proficient in Python, JavaScript, SQL and Tableau."

Core Competencies

- Knowledge of Python for data science to conduct data mining activities to identify trends, patterns and correlations within large data.
- Knowledge of SQL to clean databases by removing duplicated, irrelevant or dirty data
- Is able to work with stakeholders to understand needs for data structure, availability and accessibility and to define business information needs
- Proficient with Python data science libraries such as Scikitlearn, Tensorflow, Keras, Pandas to develop code, scripts and data pipelines for processing structured and unstructured data.
- Able to perform data preprocessing using Python for usage in Data Science operations or when performing ETL for a Data Warehouse.
- Able to work with DevOps tools such as Git Lab and also with the Scrum framework.
- Able to use Tableau to do data visualization and create data reports to interpret large amounts of data.

Co-Curricular Activities

ExCo, Saint Andrew's Secondary Robotics Club

In-charge of general management of the club including managing conflicts and also setting up discussions on improving performance of the club in competitions.

Also led a fund raiser within the club to boost the amount of money we can spend for parts for the robot. This fund raising program is still active in the club till now.

Skills and Abilities

- Python
- Tensorflow / Keras
- Machine Learning
- Data Analytics
- Data Preprocessing
- Tableau
- JavaScript
- Full Stack Web Development
- User Interface
- User Experience Design
- Cybersecurity
- SQL
- Git
- Scrum
- Object Oriented Programming

Languages

English

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Chinese

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Achievements

- ExCo of St Andrew's Secondary Robotics Club – 2018 to 2019
- Edusave Good Progress Award – 2019
- IDE Mech Wars 4th Place – 2019

Education

Diploma in Applied Artificial Intelligence and Analytics

Singapore Polytechnic (April 2020 - 2023)

From this course, I have learnt many important skills such as:

- Being able to quickly adapt and learn new skills through self directed learning.
- Great team worker able to collaborate within a team environment efficiently and quickly form solid relations to new teammates.
- Improving on my leadership skills when working within group environments to effectively lead my group to work towards a common goal and resolve issues quickly and be able to brainstorm as a team efficiently.
- Being able to think on my feet and solve problems while keeping a clear mind under pressure.
- Work under tight datelines.
- Strong communication and interpersonal skills
- Resourceful in meeting project demands.
- Capable of using past leadership experiences to build up my leadership skills so I can be a better leader every time I lead.

GCE 'O' Levels

Saint Andrew's Secondary School (2015-2019)

In my time here, I cultivated much of my character that I possess now, I learnt to be

- Always prepared to listen to advice and act upon it as means of improving the standard of my work.
- Willing to learn from my mistakes and readily accept feedback as means of improving.
- Perseverance and Resilience in my journey to achieve my goals.
- Able to have an understanding of my strengths, inclinations and weaknesses.

Work Experience

Owner of Defiance eSports

(Dec 2016 - Feb 2021)

Founded and managed an eSports Organisation that competed in various local and online tournaments in Rainbow 6 Siege and Overwatch. Had over 30 members including players, coaches and support staff. Main job in the Organisation is as a player and manager. This entails settling conflicts between players in the team, managing timetables for practice and various activities, setting goals and directions to take as the whole team and onboarding new players so that coaches/support staff are able to help them.

Previous Projects

Data Analysis on Singapore Transport Data

Did Data Analysis on Singapore Transport data, where I used Tableau to visualize key aspects of the data which allowed us to spot trends and also gain key insights on the dataset. This also required me to do data cleansing on Python using libraries such as Pandas.

Machine Learning Regression, Classification, Clustering and Time Series Problems

Solved Regression, Classification, Clustering and Time Series Problems with machine learning using the scikit-Learn library in Python. I compared different machine learning algorithms to solve each problem and different approaches to solving the problem to find the method that produces the best result. I experimented with different data preprocessing methods such as many ways of outlier removal and data normalization to further improve the quality of the models I was training. This gave me experience in building machine learning models for these problems and also different methods and approaches to improving their accuracy and quality.

Deep Learning for Convolutional Neural Networks(CNN) for Image Classification, Generative Adversarial Networks(GAN) and Reinforcement Learning

Using the Tensorflow/Keras library in Python. I was able to build CNN and GAN neural networks from the ground up. This was a really difficult project as the Deep Learning field is pretty new and there was not many things we can learn from except technical papers. So much of this project is self-directed learning. I built and train an Image Classification neural network from the ground up on the CIFAR10 dataset which requires a deep understanding of the CNN architecture. I also built and trained a GAN neural network to generate new images from the CIFAR10 dataset from the ground up.

For reinforcement learning, I managed to solve the OpenAI LunarLander v2 environment with over 250 score using DQN and DDQN as I wanted to compare the performance and differences of the 2 algorithms

Check out more of my works at cirdna.github.io