Tan Kar Gim

+6591513779 kargim86@gmail.com https://www.linkedin.com/in/kargim-tan/

Personal Brand Statement

An aspiring data scientist, who transited from process engineering into data science by taking data science course at General Assembly. I am looking forward to solving stakeholders' requests and issues through logical data analysis and modelling, using use of the information to turn them into business and improvement opportunities.

Working Experience

Senior Staff Process Engineer **July 2020 - Present**
ams OSRAM

Responsibilities

- Leads a team of 3 in supporting (troubleshooting and making process improvements) for 4 process types across 5 different products
- Prepare design of experiment reports to update manager
- Cooperate with product and production teams on improving yield for each products
- Includes previous responsibilities from Staff Process Engineer

Achievements

- Achieve ~USD 100,000 savings in materials reduction and process simplifications for sunset product

Staff Process Engineer **May 2017 – July 2020**
ams International AG

Responsibilities

- Monitor measurement results, conduct data analysis and alert respective process owners about potential issues based on measurement results through daily and weekly reports
- Support new product development measurement requests
- Support measurement for design of experiment by other processes
- Ensure machines (3 type of platforms) measurement results are accurate and repeatable
- Troubleshoot machine issues

Achievements

- Setup defect detection for master mold measurement using 3D measurement that helps to filter out defective master molds
- Wrote auto-file transfer software to overcome intermittent network disconnect issue
- Wrote software to compile thousands of analysis reports together for data analysis

Process Engineer II (Metrology Process) **Aug 2012 – May 2017**
Seagate Technology International

Responsibilities

- Generate/tune "recipe" to capture defects of interest using "Candela 6120" (From KLA Tencor) by working with groups such as Failure Analysis and respective process owners
- Research and investigate on the potential application of neural network on defects/pattern recognition

- Conduct machine-to-machine correlation
- Identify and simplify routine / repetitive tasks through self-written software/code (Excel macros and LabView)

Achievements

- Wrote a LabView software to help reduce the time required to correlate a Candela machine to another Candela machine by at least 50%
- Awarded with iCAQ (I Care About Quality) award for project on "Adaptive Sampling"

Experience

Data Science Immersive **Dec 2021 – Present**
General Assembly
Skills Acquired:

- Machine Learning (Linear/Logistic Regression, Naïve Bayes, Decision Trees, Random Forest, SVM,
- Data Visualisation (Matplotlib, Seaborn)
- Deep Learning (Neural Network), convolution network and recurrent network

Projects:

- Project 3: Reddit Classifier
    - Create a reddit classifier to classify 2 different sub-reddits from each other
        - Web-scrapping sub-reddits posts via Pushshift API
        - Creating a bag of words from various columns in the dataset (e.g. selftext, titles) using count vectorizer and TF-IDF vectorizer
        - Created 2 different models using logistic regression and naïve bayes
        - Optimize hyper parameters using grid search
        - Gaining insights from logistic regression coefficients
    - Tool used: Python, pandas, matplotlib, seaborn, numpy, sklearn (logistic regression, standard scaler, model selection, naïve bayes, confusion matrix, pipeline), requests, web scraping
- Project 2: Ames House Price Predictions
    - Create a model to predict the house prices
        - Handling of large features datasets by cleaning and selecting features to be used for modelling
        - Modelling of housing prices using linear regression models
        - Provides insights to what are the main features/factors that affect the price of the house
    - Tools used: Python, pandas, matplotlib, seaborn, numpy, sklearn (linear regression, standard scaler, polynomial features, model selection and metrics)
- Project 1: SAT vs ACT
    - Data cleaning and preparation
    - Understanding data through exploratory data analysis (EDA)
    - Presenting data through visualisations

- Generate insights and make recommendations in response to the problem statement
- Tools used: Python, pandas, matplotlib, seaborn, numpy

Bachelor of Engineering (Mechanical Engineering) **August 2007 - July 2011**
National University of Singapore

- 2nd Class Upper Honours (CAP: 4.20)
- Specialise in Mechatronic
- Minor in Management
- FYP on DMERI Lower Limb Exoskeleton
- Design Project on Wall-Climbing Car

Skills

Data Analysis, Python, Machine Learning Modelling, Deep Learning (Neural Network), SQL Microsoft Office (Word, Power Point, Excel), LabView Programming (Core 1 & 2), Visual Basic, JMP, Minitab, C and C++ Programming, Solidwork