Contact

www.linkedin.com/in/kohjiaxuan (LinkedIn)

Top Skills

Python
SQL
SAS

Languages

Chinese (Simplified)
English

Certifications

Supervised Machine Learning Procedures Using SAS Viya in SAS Studio (3.3)
SAS Visual Investigator for Intelligence Analytics & Fraud Detection
Applied Analytics Using SAS Enterprise Miner
SAS Certified Predictive Modeler Using SAS Enterprise Miner 14
SAS SQL 1: Essentials

Honors-Awards

Honours (Highest Distinction)
CN Yang Scholars Program / Nanyang Scholarship

Publications

Sandwich-Architectured Poly(lactic acid)–Graphene Composite Food Packaging Films

Jia Xuan Koh

Data Scientist at Yokogawa
Singapore

Summary

Passionate about data science/engineering and has working experience with various public agencies to improve their data systems and upgrade into the field of data analytics and business intelligence. Currently on a new chapter to work with industrial companies to deliver exciting data science projects and improve their operations! Proficient in Python (usual data science libraries, computer vision, web development, scripting), SAS, SQL and NoSQL.

In my free time, I enjoy learning from online courses and doing interesting data projects including machine learning, computer vision, natural language processing, implementing interesting dashboards, etc.

Feel free to check out my profile, Github account, message me or request for my resume!
Github: http://github.com/kohjiaxuan (Projects links below and in Accomplishment - Projects section)

Some of my enjoyable projects and competitions include:
1. Natural Language Processing (NLP) Model to determine similarity of two Wikipedia Articles
2. Data Science Competition by SAS Institute (1st place)
3. Wikipedia Scraper and Text Analytics Python Package
4. Predicting price of HDB Resale Flats using machine learning. Best Model: Random Forest & XGBoost
5. Visualization of Gradient Descent Algorithm for Machine Learning
6. Stock Market Dashboard using live API
7. Customizable and reusable Machine Learning Code Pipeline (Python)
8. Shopee Data Science Challenge 2021 - Bahasa Indonesia Address Elements Extraction (Natural Language Processing, Top 16%)

Experience

Yokogawa
Data Scientist
June 2020 - Present (11 months)
Singapore

Co-innovating tomorrow

• Areas of expertise: Proof of Concept development, Computer Vision, Predictive Maintenance, Anomaly Detection, Sequence Analysis, Web applications and APIs

• Skills: Python, Machine Learning, Deep Learning, R&D, Technical Writings and Presentation, API development, Solutions deployment on Flask web app, HTML/CSS/JavaScript

DXC Technology
Data Engineer
February 2019 - April 2020 (1 year 3 months)

• As the sole data engineer, successfully delivered a project that designs automated data ingestion pipelines and implements data harmonization (Extract, Load, Transform) customized to the needs of clients with Apache Nifi, JavaScript and MarkLogic NoSQL database. Optimized pipeline to be memory and time efficient.

• Delivered two Proof of Concepts (POC) for clients to set up an automated, investigative/fraud detection systems using SAS Visual Investigator and ETL software. Designed tailored data schemas stored in PostgreSQL Server. User-friendly front end design and strong features were lauded by clients.

• Built visualizations including network diagrams, KPI dashboards, word clouds on social media comments, and designed reports using basic HTML / CSS which helps end users interpret data easily and make informed decisions.

• As a team, designed viable data schemas with network links between entities/activities and figured out entity resolution of personnel data, allowing data systems to detect duplicates or similar names and register as a single person in the system.

• Designed training materials, coursework and mentored colleagues on the basics of data engineering, database configuration and high level system architecture.

• Supported data migration project and preparation for User Acceptance Testing (UAT) for a public agency. Used SAS Programming, SQL and Root Cause Analysis to rectify faulty ETL jobs on huge datasets.

SAS

SAS Business Intelligence & Analytics Program

October 2018 - January 2019 (4 months)

Singapore

• Proficient in data processing, analysis, visualization and modelling as a SAS and SQL trained data analyst. Attachment at DXC Technology under the program.

• Achieved 1st in for a data science project in a team of 4 under the SAS BIA program, which simulated real world data projects to clients. Conducted feature selection and engineering, user profiling and developed interpretable models (Decision Trees, Market Basket Analysis, Logistic Regression) for customer data of a Japanese e-commerce company. Presented business insights and recommendations to stakeholders and proposed solutions to increase company revenue.

• Undergone training in a variety of SAS software under SAS Business Intelligence and Analytics Program, including Data Preparation, Visualisation, Data Mining Models and Machine Learning on SAS Viya. Trained in Big Data Management, including using SAS technologies and programming to tap on Hadoop framework, HiveQL and Pig language.

• Gave a presentation on the basics of machine learning and types of neural networks to a class of 15 with good reviews

• SAS Certifications obtained:
(1) Base SAS Programming
(2) Big Data Preparation, Statistics and Visual Exploration
(3) Big Data Programming and Loading
(4) Predictive Modeller using SAS Enterprise Miner

Nanyang Technological University

4 years

Bachelor's Degree in Chemical Engineering
August 2014 - July 2018 (4 years)
Singapore

• Honours (Highest Distinction) with distinction in Final Year Project, Dean’s List for 2014/15
• CN Yang Scholars Programme with Nanyang Scholarship

DATA PROJECTS IN PYTHON:
Github: https://github.com/kohjiaxuan
Detailed explanation of the projects are in Github - refer to Accomplishment - Projects section below. A summary of the projects are given in the images below.

• Final Year Project: Worked closely in a team of 9 to develop a novel chemical plant design that is highly optimized and yields profits. Applied chemical engineering expertise and mathematical knowledge to choose the right settings for each component in the plant and ran Monte Carlo simulations to understand the profitability of the plant based on various economic scenarios. Presented findings to Professors (acting as clients) and scored a distinction for the project.

Undergraduate Research Assistant
December 2014 - August 2015 (9 months)
School of Chemical and Biomedical Engineering

• Successfully helped to publish a scientific publication under ACS Materials (link below) with mentor with >60 citations (2020), where graphene was introduced into plastic packaging to prolong the lifespan of stored food.

• Conducted data analysis on the ideal adhesive composition and film size that minimized the permeability of water while keeping the structural integrity of the plastic packaging intact. A strong membrane was created which boosts the lifespan of packaged food significantly.

Publication: https://pubs.acs.org/doi/abs/10.1021/acsami.6b02498

Novartis
Quality Assurance Intern
January 2017 - May 2017 (5 months)
Singapore

Interned under Quality Assurance (QA) and Compliance (QC) departments concurrently. Important responsibilities included:

• Data cleaning and analysis of raw logbook data for the reviewing time taken on various drug releases using Excel. Determined reasons for delays in file review, like production unit delays or deviation. Presented these findings to my colleagues, resulting in appropriate corrective actions to improve file review timing by a significant 32%.

• Created a physical dashboard for the workflow management of QA department with other interns, and completed daily administrative tasks amidst a busy schedule by exercising good time management.

• Worked in an international environment and improved on interpersonal skills.

• Actively prepared logistics and audit documents and worked closely with both top management and engineers. Successfully completed 3 successful major health audits of drug products by health agencies from Singapore, European Union and Belarus.

Aalto University School of Science and Technology

Exchange Student

September 2016 - December 2016 (4 months)

Finland

• Lived in Finland and worked closely with Finnish and international students in school projects. Learnt to live independently while also building close connections with students and professors.

Education

Nanyang Technological University

Bachelor's Degree, Chemical Engineering · (2014 - 2018)

Victoria Junior College

A Levels, Physics, Chemistry, Mathematics, Economics, GP · (2010 - 2011)