Teo Kiat

Data Scientist
Singapore

Work Experience

Data Scientist

Jabil Singapore Pte. Ltd
May 2015 to December 2018

• Lead Digital Factory Data Science Innovation, implementing end-to-end real time embedded predictive models to manufacturing processes to improve defect detection and reduce false alarm rate.
• Achievement: Percentage of true defects identified increased, decreased manual inspection time and improved overall production efficiency.
• Created machine learning model based on past production solder paste data and pass/fail records to identify whether the pcb board was defective before being determined at inspection step.
• Achievement: Percentage of true defects identified increased and false alarm rate decreased. Hence manual inspection time decreased and overall production efficiency increased.
• Created machine learning model based on past X-ray measurements and pass/fail records to identify whether the pcb board was defective before being determined at inspection step.
• Achievement: Percentage of true defects identified increased and false alarm rate decreased. Hence manual inspection time decreased and overall production efficiency increased.
• Wrote deep convolution neural networks programs to assist human operator in identifying whether the PCB board was defective based on its X-ray image.
• Explored using time series analysis to forecast consumer demand for products of our corporate clients to aid production scheduling.

Data Scientist

Revolution Analytics Singapore
August 2014 to April 2015

• Implemented data science projects for clients as proof of concepts to demonstrate the strengths of Revolution Analytics software.
• Performed a K-Means clustering algorithm on customer segmentation analysis for TM Berhad.
• Implemented time series forecasting methods to forecast the demand of Asian Paints products.
• Participated in the Intel Internet of Things project where ◦ Machine learning was combined with computer vision techniques to identify defective electronic boards
◦ Time series forecasting was applied to sensor data to predict time to failure of equipment to aid predictive maintenance
• URL: http://www.wsj.com/articles/intel-steps-up-its-push-into-internet-of-things-1418151365

Research Associate

National University of Singapore
June 2012 to December 2013

- Department of Applied Probability and Statistics and School of Public Health

• Worked on developing fast and efficient simulation-based statistical methods for fitting contact network models of sexually transmitted diseases.

Research Candidate & Teaching Assistant
University Oxford - Department of Statistics
October 2007 to May 2012

• Area of research was in machine learning.
• Used a logistic regression embedded within a mixture of experts model to classify mixture data and compared bayesian and frequentist methods in doing so.
• Taught actuarial science to undergraduate students.

Research Candidate & Teaching Assistant
University of Iowa - Industrial Engineering Department
August 2006 to July 2007

• Research areas were in linear programming and stochastic optimization. Wrote a program using C++ and cplex to optimize the returns the of a portfolio of stocks subject to the conditional value of risk not exceeding a pre-determined level subject to investor's risk tolerance.
• Taught stochastic modeling to undergraduate students.

Lecturer
Stansfield College Singapore
September 2005 to June 2006

Taught mathematics and statistics to undergraduate students in a business degree.

Service Dealer
July 2004 to April 2005

Refco (S) Pte Ltd
• Advised on trading strategies and executed trades of currencies, commodities and index futures.

Service Dealer
May 2003 to June 2004

Man (S) Pte Ltd
• Advised on trading strategies and executed trades of currencies, commodities and index futures.

Education

Certificate in MSc Statistics by Research
University of Oxford
2019

M.Phil in Statistics
University of Cambridge
2012

BSc in Actuarial Science
London School of Economics and Political Science
2001

Diploma in Economics

University of London

1998

Skills

C++ (Less than 1 year), LINUX (Less than 1 year), MATLAB (Less than 1 year), PYTHON (Less than 1 year), SQL (Less than 1 year)

Links

http://www.wsj.com/articles/intel-steps-up-its-push-into-internet-of-things-1418151365

Additional Information

Computing Skills

Proficient: R
Intermediate: Python, C/C++, Cplex
Basic: SQL, Matlab, Linux