

Pei Yingchi

Resume

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Education

- 2013 – 2017 **Business Analytics (Bachelor)**, *National University of Singapore (NUS)*.
- CAP: 4.91/5.0, Honours with Highest Distinction
 - Winner of Lee Kuan Yew Gold Medal
 - Five times Dean's Lister (Top 5%)

Work

- 2017 **Data Scientist**, *DataSpark, Singtel, Singapore*.
Jul-Present Work in the application team.
- Research on footfall analytics with telco data using machine learning algorithms. Implement and productionize those algorithms into our data analytics platform
 - Develop intellectual property for the company by submitting research papers.
 - Design and develop the network planning application for telco operators to reduce upgrading cost while improving customer experience. Build the application in scala and deploy it in a big-data environment
- 2016 **Data Analytics Intern**, *ViSenze, Singapore*.
December Fully incharge of the internal dashboards.
- Established the pipeline of internal metrics reporting by understanding the raw data, current data management system and the requirements from various team leaders
 - Produced dashboards on system and business performance to enable stakeholders to make effective decisions, using Chartio and SQL
 - Assisted the engineering team in database design
- 2016 **Data Science Intern**, *DataSpark, Singtel, Singapore*.
May-Nov Part of the product team at DataSpark.
- Worked in a big data environment with Hadoop as the data management platform and Apache Spark as the data processing engine
 - Conducted several geolocation data analysis projects which added new features to our data solutions and improved the model accuracy
 - Applied models such as Maximum A Posterior Estimation (MAP), Naive Bayes, Multinomial Logit Regression, and Support Vector Machine (SVM)
 - Implemented reproducible code using R Markdown and Python for the projects
 - Built interactive data visualizations (Web apps) using JavaScript, Node.js and React which are used by the clients and the consulting team
- 2015 **Market Research Analysis Intern**, *Millward Brown, Shanghai, China*.
May-Aug Work on a long-term marketing research project for Budweiser.
- Successfully prepared the 2015 Q1 report for Budweiser with another team member in time, which received a great response from the client
 - Collected and compiled the consumer survey data weekly using SPSS Survey Reporter
 - Detected several problems and initiated deep dive research to find explanations

Publications

- 2018 Feb **Pei, Y.**, Ng, Y., Cai, Y., Li, Y. (2018).
"Geospatial Re-Distribution Methods for Footfall Count Estimation using Mobile Network Data", Submitted for Publication

- 2017 Ng, Y., **Pei, Y.**, Jin, Y. (2017).
"Footfall Count Estimation Techniques Using Mobile Data", 2017 IEEE 18th International Conference on Mobile Data Management (MDM), Daejeon, South Korea, 2017, pp. 307-314.
doi: 10.1109/MDM.2017.49

Projects

- 2015 1st sem **Bankruptcy Prediction Using 10-K Reports**, *BA Capstone Project*.
- Gathered data with over 50,000 records from 3 large financial databases
 - The model assumptions and data consistency were carefully evaluated
 - Investigated different methods such as resampling and cost-sensitive learning to deal with the imbalanced dataset
 - Incorporated text-mining features such as fog readability and sentiment score to the traditional prediction model. The best model achieves testing AUC score 0.9
- 2014 2nd sem **Twitter Follower Analysis For "@TopShop"**, *Data Mining Project*.
- The data of 20,000 Topshop followers were collected using R through the Twitter API
 - A classifier was built to classify tweets into categories. Various methods such as Logistic Regression, Random Forests, SVM, and K-Nearest Neighbour were used
 - The followers' account attributes were analyzed, and the results were aggregated and visualized using R and Tableau

Activities

- 2014 – 2015 **Teaching Assistant**, *IS1112 E-Business Essentials, NUS*.
- Crafted and compiled 4 question sets containing over 100 questions
 - Provided assistance and feedback for the students throughout the course
- 2014 Summer **Program Assistant**, *Egyptian Society for Integrated Development, Cairo, Egypt*.
Design and implement activities for underprivileged children.
- Innovated a new teaching style with audio-visual aids, role-playing and interactive games, resulting a 40% increase in the attendance rate
 - Co-organized a field tour to emphasize the importance of saving water
- 2013 – 2014 **Vice President**, *Chinese Society Chinese Orchestra, NUS*.
- Organized an annual welcome event, which resulted in a membership increase of 50%
 - Expanded the influence of CSCO by organizing an annual music concert with more than 200 audiences
 - Initiated 4 new events with the committee, including music talks and cultural exchange programs

Additional Information

- Languages Fluent in English and Mandarin. Know basic German (A1 level)
- Skills Statistics background with 12 statistics modules taken. Programming background with knowledge in Python, Scala, R, Spark, JavaScript, SQL and SAS
- Interests Music: Play the piano, the cucurbit flute and the Erhu
Sports: Taekwondo and Karate