JINGYI BU

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GitHub — https://github.com/bujingyi

SUMMARY

· 5+ years' AI/data science experience in Healthcare and Aviation.
· 2+ years' experience of leading a 10+ data scientists team.
· Product-level modeling on reinforement learning, deep learning, classic machine learning.
· Welcome to my GitHub and feel free to take whatever you like.

EXPERIENCE

GE Aviation Digital June 2016 - Present
Technical Leader of Data Science, Staff Data Scientist *Shanghai, China*

· Establish and lead data science team to explore and apply modern data analysis methods in traditional industries.
· Lead/participate in global projects and build solid connection between local and global data science groups
· Plan, monitor, and review the results of China team's local projects.
· Coach, counsel, and discipline team members; design individual technical/career development plan for each team member.
· Define, formulate, and develop strategies for China team's technical growth.
· Standardize and optimize data analysis process for GE Aviation China to continuously improve efficiency and stability.
· Cooperate and collaborate with business team to develop new customers for GE Aviation China.

Philips Research Healthcare April 2013 - June 2016
Scientist *Shanghai, China*

· Disease risk modeling including high risk pregnancy identification, cardiovascular disease risk predication etc.
· Healthcare big data analytics.
· Data-driven and knowledge-based clinical decision support.
· Knowledge management.

PROJECT

Airline Inventory Management with Reinforcement Learning
GE, September 2017 - Present

· Designed and developed a gym-like environment to emulate the real world scenario.
· Proposed and implemented multiple AI solutions including heuristic search, deep Q network, and proximal policy gradient.
· Developed a distributed TensorFlow framework to train the model.
· Deep reinforcement learning, TensorFlow.

Engine Health Monitoring and Management
GE, June 2016 Present

· Forecasting model: LSTM Accepter/Transducer architecture + residual analysis.

- Classification model: multi-channel CNN + resampling strategy.
- Embeding model: LSTM encoder-decoder architecture + classic machine learning models.
- Generative model: GAN + data augmentation.
- Application scenarios: high risk aircraft engine identification; aircraft oil leakage detection and prediction; airline fleet segregation et al.
- Deep learning, TensorFlow.

Analytics Based (Aircraft Engine) Maintenance
GE, June 2016 – January 2017

- Built regression models (LR, CART, GBDT) for component-level distress ranking prediction.
- Developed stacking models to ensemble multiple component-level regression models for engine-level removal prediction.
- Lead the development of automative analytics tools for this kind of problem for global teams.
- Facilitated GE Aviation Analytics' transition from R to Python.
- Machine learning, scikit-learn.

Cloud Based Patient Follow-up and Rehab Management Solutions
Philips, August 2015 – June 2016

- Developed user classification models to detect potential paying customers or the users who can benefit from the solution.
- Designed and developed the knowledge base enabling the functionality of clinical decision support of the system.

Mobile Obstetrical Monitoring
Philips, June 2014 – July 2015

- Developed risk predication models (Logistic Regression and CART) for pregnant woman on hypertension in pregnancy and pre-eclampsia
- Designed and implemented a random patient profile generator for physicians to validate the models.
- Developed an Android prototype to implentent and test the models

Personal Health Management Solution
Philips, January 2014 – December 2014

- Designed the whole workflow of personal health management.
- Developed risk predication models (Weibull) on four-year hypertension, eight-year diabetes, and ten-year cardiovascular diseases.
- Developed recommendation delivering systems including diet and exercise according to people's risk levels.

EDUCATION

Shanghai Jiao Tong University *2010 - 2013*
M.S. in Biomedical & Medical Engineering
Overall GPA: 2.61/3.0 — top 10%

Shanghai Jiao Tong University *2006 - 2010*
B.S. in Biomedical & Medical Engineering
Overall GPA: 3.7/4.3 — top 10%