JONAH BU

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SUMMARY

- 9+ years' AI/data science experience in Healthcare and Insurance.
- 5+ years' experience of leading AI/Data Science teams.
- Author of the book - Machine Learning: Theory and Optimization.

EXPERIENCE

AIA Group Distribution
Associate Director, Data Science

Mar 2022 - Now
Hong Kong

- Leading Analytics & Insights team in AIA Group Distribution to optimize, standardize, and deliver the core AI and data analytics function across all distribution channels including agency, partnership distribution, digital platform distribution, and corporate solution.
- Managing and supporting AIA local BUs on solutioning, developing, and implementating AI/data analytics use cases for distribution to achieve the business targets.
- Supporting AIA local BUs developing the analytics strategic roadmaps.

AIA Group Distribution
Senior Manager, Data Science

Mar 2020 - Mar 2022
Hong Kong

- Lead Analytics & Insights team in AIA Group Distribution to drive the delivery of AI/data analytics use cases across the four channels for all AIA markets.
- Play a key role in the engagement of multiple teams to connect channels in Distribution, data science team in Technology, and business teams in Local BUs.
- Supporting AIA local BUs developing the analytics strategic roadmaps.

AIA Group Technology & Operation
Artificial Intelligence Lead

Nov 2018 - Mar 2020
Hong Kong

- Lead AIA's exploration of where, why and how AI (cognitive and non-cognitive) may be applied to improve AIA's customer experience, distribution effectiveness, business processes and operating efficiency, while maintaining regulatory compliance.
- Play a key role in explaining AI concepts to AIA's leadership team, defining specific 'use cases' for potential adoption, and overseeing the integration of those as appropriate into the business to create measurable impact.
- Champion the selective launch and implementation of AI projects across the 18 Asia Pacific markets that make up the AIA Group.
- Propose and define AIA's AI roadmap and priorities, set the direction for future technology investments in the AI field.

GE
Data Science Team Lead, Staff Data Scientist

Jun 2016 - Nov 2018
Shanghai

- Establish and lead data science team to explore and apply modern data analysis methods in traditional industries.
- Participate in global projects and build solid connection between local and global data science groups.
- Define, formulate, and develop strategies for China team's technical growth.

- Standardize and optimize data analysis process for GE China to continuously improve efficiency and stability.
- Cooperate and collaborate with business team to develop new customers for GE China.

Philips Research   Apr 2013 - Jun 2016
Scientist   *Shanghai*
- Build disease risk models including high risk pregnancy identification, cardiovascular disease risk predication etc.
- Apply big data analytcs in Healthcare.
- Develop data-driven and knowledge-based clinical decision support systems for Philips global markets.

PROJECT

AI Powered & Analytics Driven Agency Development Solution
AIA Group Distribution, Mar 2020 - Present
- Design and develop Group level solution to support all key steps in AIA agent career development path including recruitment, training, promotion, and retention by leveraging multiple data sources e.g. aptitude test, behavior, perfomance etc.
- Localized solutions have gone live in multiple markets: recruitment solution in Thailand and Vietnam; training solution in Thailand; promotion solution in Malaysia and Thailand; MDRT solution in Singapore and Malaysia; retention solution in China.

Data-driven Customer Journey for Partnership Distribution & Digital Platform Distribution
AIA Group Distribution, Nov 2020 - Present
- Collaborate with digital marketing team on the creation of data-driven customer journey for PD (Bancassurance) and DPP (a completely new channel established in 2021) including customer acquisition, lead generation, lead nurturing, lead qualification, and seller/agent matching for lead conversion.
- Apply the cutting-edge technologies such as reinforcement learning based recommender system to build personalied marketing content / product recommendation engine for AIA customers.
- Continuously supporting local BUs on the improvement of data-driven customer journeys in Hong Kong, Thailand, Malaysia, Korea, and the Philippines.

Implementation of Data-driven Underwriting for Bancassurance
AIA Group Distribution, Nov 2020 - Present
- Implement the data-dirven underwriting (DDUW) which leverages the customer data from banks to predict a customer's underwriting risk to enhance the customer journey by minimizing the number of underwriting questions while increasing the maximum sum assured offered.
- Tailor and localize DDUW solution developed by reinsurer to fit local BUs' requirements based on banks' data availabilities.
- Tailored solutions launched in Korea, Thailand, and Vietnam.

Selected Analytics Use Cases for Corporation Solution
AIA Group Distribution, Nov 2020 - Present
- Propose and deliver analytics use cases to drive the expension of CS business in multiple markets including Tailand, Hong Kong, China, Malaysia, and Singapore by CS agent profiling, IVS customer propensity modelling, and IVS customer pre-underwriting scoring.

AI-powered Underwriting Engine for AIA Philam
AIA Group Technology & Operation, Dec 2018 - Feb 2020

- Delivered AI solution to replace the traditional manual underwriting procedure with a 60,000 times faster processing speed by transcending rule-based automation and using superior cognitive automation.
- Designed and developed simulation method to translate rules into AI models without historical data for new product release and existing rule updates.
- The solution went live in Feb 2020 and won Digital Transformer and Information Visionary categories at the prestigious IDC Digital Transformation Awards 2020.

Airlines Inventory Management with Reinforcement Learning
GE, Sep 2017 - Nov 2018

- Designed and developed an intelligent solution to automate inventory management process such as parts replenishment, allocation, and rellocation to optimize the stock level and turnover rate.
- Proposed and implemented multiple AI solutions including heuristic search, DQN, PPO trained with a distributed TensorFlow framework in a gym-like environment to emulate the real world scenario.
- Solution went live in China Eastern Airlines.

Analytics Based Maintenance
GE, Jun 2016 - Jan 2017

- Built condition-based maintenance solutions that monitors the condition of assets through sensor devices for GE's aircraft engine series by a combination of a bunch of ML models handling different parts of flying cycles.
- Main model components include regression models (LR, CART, GBDT) for component-level distress ranking prediction, and stacking models to ensemble multiple component-level regression models for engine-level removal prediction.

Cloud Based Patient Follow-up and Rehab Management Solutions
Philips, Aug 2015 - Jun 2016

- Self health management solution for patients during recovery stage after cardiovascular surgery by connecting patients at homes with AI asistent and doctors in hospitals.
- 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, Jun 2014 - Jul 2015

- Low-cost and easy-to-use obstetrical monitoring solution for primary care in undeveloped area in Philips markets.
- Developed risk predication models for pregnant woman on the early detection of hypertension in pregnancy and pre-eclampsia.

Intelligent Test Suite
Philips, Apr 2013 - Dec 2013

- Low-cost and easy-to-use primary care solution for general practitioners by integrating sphygmomanometer, oximeter, and pulse wave velocity meter into one portable suite powered by intelligent algorithms running in backend.
- Rebuild disease risk models on four-year hypertension, eight-year diabetes, and ten-year cardiovascular diseasesfrom literature study.
- Design and implement knowledge base to deliver personalized recommendations.

EDUCATION

Shanghai Jiao Tong University   *2010 - 2013*
M.S. in Neuroscience
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%

PUBLICATIONS & PATENTS

- **Jingyi Bu**, Chunqi Shi. Machine Learning: Theory and Optimization. ISBN: 9787302517184, 2019.

- **Jingyi Bu**, Hao Li, Hai-Qing Gong, Pei-Ji Liang, Pu-Ming Zhang. Gap Junction Permeability Modulated by Dopamine Exerts Effects on Spatial and Temporal Correlation of Retinal Ganglion Cells' Firing Activities. in Journal of Computational Neuroscience, 2013.

- **Jingyi Bu**, Ning Lan. An Improved Multi-Channel Cortical Recording and Stimulation System. International Convention on Rehabilitation Engineering & Assistive Technology, p. 98-101, 2010.

- Wang Jin and **Bu Jingyi**. An Apparatus and Method for Evaluating Multichannel ECG Signals. WO2015052609A1.16/04/2015