

Yao Zhongyu, Frank

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Profile

- Strong passion in machine learning/data mining-related R&D with empirical experience
- Hands-on experience in C/C++, Java, Python programming and other system implementation
- Sound knowledge about data science, database, machine learning and so on
- Various international experiences and great command of written and spoken English with certifications
- Able to work under pressure with high independence. Open-minded, creative and eager for learning

Education

2018.09-2020.03 The Hong Kong Polytechnic University Hong Kong SAR

- Master of Science in Information Technology
- Graduated with Credit

2016.07-2016.09	University of California, Irvine	United States
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- Visiting International Program

2014.09-2018.06 Chongqing University of Posts and Telecommunications Mainland China

- Bachelor of Engineering in Information Security
- Elite Class of Outstanding Engineers Program ([PETOE](#))
- Grade comprehensive ranking: 7/282

R&D Experience

Research Papers

- Recursive Balanced k-Subset Sum Partition for Rule-constrained Resource Allocation. CIKM 2020 [\[DOI\]](#)
- IRDA: Incremental Reinforcement Learning for Dynamic Resource Allocation. IEEE Trans. Big Data, 2020 [\[DOI\]](#)
- BigARM: A Big-data-driven Airport Resource Management Engine and Application Tools. DASFAA 2020 [\[DOI\]](#)
- A Sequential Attention Based Convolutional Neural Network for Anomaly Detection. Journal of Zhengzhou University (Natural Science Edition), 2019(02) [\[DOI\]](#)

Competitions & Developments

2018.10-2019.06 EY Data Science Competition, “*Smart City*”, Ranked **top 10 in HK, 6.2%(147/2369) globally**

- Predict the vehicle location in the city of Atlanta by using systematic data mining and processing ideas.

2017.09-2018.06 Tianchi Competition, *“Clothes Matching on Taobao”*, Ranked top **0.67%**(17/2523) **globally**

- Analyze and model more than 1.837 million Taobao desensitization data by Java and Python. Thoughtful feature engineering is deployed.
- In modelling part, multiple algorithms including XGboost, Ridge Regression, KNN and TF-IDF, are compared and partially combined.

2017.03-2017.06 *Team Leader*, National College Student “*Challenge Cup*” Contest, Ranked top **0.46% globally**

- The system is designed to target abnormal real-time or predicted flow distribution, giving rational advice to the airport and presenting users the flow inside the airport in different time.
- As the captain, I controlled the work progress, coordinated team members, and held monthly meetings with professors.

2015.03-2016.08 *Leader, The 6th “Huawei Cup” Chinese University Students Intelligence Design Competition*

- Read massive papers, selected algorithm, design models, and reconciled schedule among instructor and members
- Presented to judges and the final result was 2nd Prize of National-level

Extracurricular Experience

2019.02-2019.03 Volunteer, Innovating Hong Kong Global Talent Carnival

- Invited international companies, top Chinese and local Hong Kong innovative companies to join the fair and guide

2016.09-2017.07 Teacher Assistant, College of Computer Science and Technology

- Administrated daily class work. Planned and organized activities between college and classes, such as promotion of exchange students program, friendship activities between classes (over 100 people), sports activities, etc.
- Tutored students English. Students examination scores improved a lot and most of them passed the CET4 after coach.

2015.03-2016.03 Volunteer, English Corner in the University

- Organized oral communication between foreign teachers, Chinese and international students every week for 1 year

Work Experience

2019.05-Present Research Assistant, The Hong Kong Polytechnic University

- Develop and deploy a big data-driven system with state-of-art ML algorithms, i.e., reinforcement learning
- Design prototypes for performance evaluation of components and for big data programming models
- Conduct research works, including reviewing the literature, abstracting projects and writing papers

2017.07-2017.09 Consulting Intern, Deloitte

- Familiar with the business and operation of EWM module in SAP system within one month
- Polish design logic of the new system and teach corporate customers to operate the system
- Received approval from the whole team and got a recommend letter from the project manager of Deloitte

2018.07-2018.09 Director Assistant Intern, Hangzhou Taihao Science&Technology Co.Ltd.

- Negotiated with local government departments and overseas companies to promote business processes on a team basis
- Received foreign government commercial counsellors and assisted in hosting the first Hangzhou International Day
- Understood and participated in the company's operations, like administration, marketing and finance affairs

Skills

- Programing: Python (PyTorch, Keras, Scikit-learn), C/C++, Java, Html 5, SQL
- Machine Learning: Data Modelling, Basic&Advanced Data Structure and Algorithm, Probability and Statistics Theory
- Language: English (IELTS, CET4/6), Mandarin (PSC secondary-level A), Cantonese (Beginner)

Awards&Certification

2020.09 Candidate of Research Talent Hub (ITF-Funded) in Hong Kong

2019.05 (Global-level, 6.2%) Globe Award of EY NextWave Data Science Competition

2018.05 (National-level) Putonghua Proficiency Test (Secondary-Level A)

2017.12 (National-level, 0.06%) Gold Prize of "Internet Plus Express" Innovation and Entrepreneurship Contest

2017.11 (Provincial-level, 0.42%) Outstanding Prize of 3rd "Internet Plus" Innovation and Entrepreneurship Contest

2017.07 (National-level, 7%) 3rd Prize of National University Student Information Security Competition

2017.07 (Provincial-level, 10%) 2nd Prize of The 15th National College Students' Challenge Cup

2016.12 (University-level, 7%) Outstanding Student Cadre

2016.12 (University-level, 2%) Advanced Individual of Innovation and Entrepreneurship

2016.08 (National-level, 15%) 2nd Prize of The 6th "Huawei Cup" University Students Intelligence Design Competition

2016.05 (National-level, 3%) 3rd Prize of National English Competition for College Students-Class C

2015.12 (University-level, 6%) 2nd Class Scholarship

2015.06 (Provincial-level) National Higher College Computer Rank Test Certificate Level-2

Interests

- Swimming, Fitness, Skateboard, Martial Arts, Tai Chi, Zen, Harmonica