

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

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|--|---|-----------------------|
| 2021.09 - Present | City University of Hong Kong | Hong Kong SAR |
| ➤ Ph.D in Computer Science | | |
| 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 |
| ➤ 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, and KNN are partially combined.
- 2017.03-2017.06** Team Leader, National College Student “[Challenge Cup](#)” Contest, Ranked **top 0.46% nationally**
 - 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 at 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
- 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 (National-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, Skateboard, Martial Arts, Zen, Harmonica