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

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

➢ The comprehensive and systematic identification of BLCA-specific SF-regulated, survival-related AS events. Gene, 2022 [DOI]

➢ 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   **(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, Skateboard, Martial Arts, Zen, Harmonica