Yao Zhongyu, Frank

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Profile

➢ Strong passion for research and development related to machine learning/data mining, with rich practical experience.
➢ Hands-on experience in C/C++, Java, Python programming and other system implementation.
➢ Solid foundation of knowledge in data science, databases, and machine learning.
➢ 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.
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].

Academic Services

➢ Referee for Submissions to Journals: Computer Communications, BioData Mining.
➢ Reviewer for Submissions to Conferences: APBC 2022.
➢ Research Committee Member: ISCMI 2022 – ISCMI 2024.

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 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.
➢ Develop a a light Android-side malware detection app. Presented to judges and the final result was 2nd Prize at National-level.

Work Experience

2023.03-2023.09   ***Faculty Lecturer***,   **Huaiyin Institute of Technology**
➢ Responsible for the theoretical and practical teaching tasks of computer science, as well as other related teaching assignments, dedicated to providing students with a quality educational experience.

- Follow the latest research progress and participate in scientific research projects, publish scientific research papers and other scientific research tasks.
- Actively engage in the university's disciplinary and professional development efforts, contributing to enhancing the educational standards and competitiveness of the university.

2019.05-2021.02 _**Research Assistant**_, **The Hong Kong Polytechnic University**
- Developed and deployed a big data-driven system with state-of-art ML algorithms, i.e., reinforcement learning.
- Evaluated component performance and designed prototype systems for big data programming models.
- Conducted in-depth research, including literature review, project abstraction, and academic paper writing.

2017.07-2017.09 _**Consulting Intern**_, **Deloitte**
- Mastered the EWM module in the SAP system within a month and gained in-depth knowledge of its business operations.
- Improved the design logic of the new system and successfully guided enterprise clients in operating the system.
- Gained the approval of the entire team and received a recommendation letter from the Deloitte project manager.

2018.07-2018.09 _**Director Assistant Intern**_, **Hangzhou Taihao Science&Technology Co.Ltd.**
- Negotiated with local government agencies and overseas companies, promoting business processes based on teamwork.
- Hosted foreign government business advisors and assisted in the organization of the first Hangzhou International Day event.
- Developed a deep understanding of and involvement in the company's operations, including administrative management, marketing, and financial affairs.

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**
- Responsible for daily classroom work, planning and organizing various school-level and class activities, such as promoting exchange student programs, fostering inter-class friendship activities (with over 100 participants), and sports events.
- Coaching students in English, significantly improving their test scores, with most students passing the CET-4 exam after guidance.

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

- **2023.10** First Prize of HK Tech 300, 11th Cohort for "Touch AI"
- **2023.10** Innovative Applications of Digital Skills (Advanced) Certificate
- **2020.09** Candidate of Research Talent Hub (ITF-Funded 132K HKD) 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
- **2014.05** **(Provincial-level)** Merit Student of Jiangsu Province

Interests

- Swimming, Skateboard, Martial Arts, Zen, Harmonica