Dr. Pan has made significant contributions to the field of bioinformatics. He has published over 450 papers and 42 books over 250 papers are published in excellent journals. His research results have been cited in many high-impact journals such as IEEE and ACM journals. He is named in the world's top 2% of Scientists List and top 1000 Computer Science Scientist List in 2021. He achieved Regents' Professor status (the highest rank for a university faculty member in the state of Georgia) at Georgia State University (GSU) in 2015. He became a Chair Professor at Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Sciences, China in 2021. During the short period of two years, he has obtained close to 35 millions RMB of research funding to support his research, which is amazing even for a senior professor.

He also shows strong leadership in an academic environment. As the department chair at GSU for 15 years, he successfully hired five NSF CAREER winners, increased its PhD production to over 10 per year, increased research funding 10 times, and led the department to be ranked top 23 departments around the world in bioinformatics research based on CSRankings.org. He continues his legacy as a strong leader at SIAT. He has hired several eminent scholars from USA, Canada, Australia, Qatar to SIAT successfully during the last two years.

He has supervised 20 Ph.D. students, over 50 MS students and 5 postdocs to completion; Two of his former Ph.D. students are currently department chairs, three are Full Professors, seven are tenured associate professors in universities in USA. Two of his PhD students received the prestigious Suttles Award. Three of his students have become CEO or vice president in industries such as JD.com.

He has significant ties with European institutions. He has done three European projects with Thomas Rauber of University of Bayreuth in Germany; with Mark Last of Ben-Gurion University of the Negev in Israel and Marina Litvak of Sami Shamoon College of Engineering in Israel; and with Kozij Mykhailo of Petro Mohyla Black Sea National University in Ukraine, respectively. He has held visiting professorship positions at University of Exeter in UK, University of Bayreuth in Germany, University of Leicester in UK and Aalto University in Finland (some are still on-going). He has been nominated for an honorary PhD degree from the University of Leicester in UK. He co-authored books and papers with European colleagues, co-organized conferences with many European colleagues, co-edited journals special issues with European colleagues, delivered keynote talks and invited lectures in European countries, paid academic visits at many European universities and institutions. He is serving as an editor-in-chief or associate editor-in-chief for several journals and many European colleagues are serving on these editorial boards. His collaborations with Europe involves colleagues from UK, France, Germany, Italy, Poland, Netherlands, Ukraine, Spain, Finland, Russia, Belarus, and Israel.

ACHIEVEMENTS (max. 300 words)

List important functions in academic or international bodies or in funding agencies, journals, conferences. List (most) important Prizes, Awards, and election into national Academies, but do not list irrelevant memberships in association, organisation, committees etc. These should be national and international prizes, or other honours, e.g. medals recognising sustained academia distinction; election to national Academies. Fellowships in scientific organisations and international associations etc. are not significant recognition.

As the department chair at GSU for 15 years, he successfully hired five NSF CAREER winners, increased its PhD production to over 10 per year, increased research funding 10 times, and led the department to be ranked top 23 departments around the world in bioinformatics research based on CSRankings.org. Since he joined SIAT in 2021 as the founding dean of Faculty of Computer Science and Control Engineering, he has recruited over ten faculty members from USA, Canada, Australia. UK, and Qatar. Under his strong leadership, his faculty has received funding of over 120 Millions RMB so far.

He served as an evaluator for many funding agencies including several European agencies: NSF, NIH, ORAU of USA, NWO of Netherlands, the US-Israel Binational Science Foundation of Israel, SSF of Sweden, the NSERC of Canada, the ARC of Australia, RGC of Hong Kong, NSFC of China, QNRF of Qatar, etc.

He was an elected member of the ACM SIGBio Board of Directors in 2021. He is the editor-in-chief of three journals and associate editor-in-chief of two journals. He is the founder and steering committee chair of ISBRA for over 19 years. He has also served as a chair for over 50 conferences such as IEEE DAAS, IEEE SmartWorld, IEEE Cybermatics, IEEE CUTE, IEEE BDCloud, IEEE ICCABS, IEEE IAT, IEEE WIC, IEEE BIBM, PDCAT, ICA3PP, IBM Cloud, etc. Many were organized together with European colleagues held in Europe.

Dr. Pan has been elected a Member of the European Academy of Sciences and Arts, a Foreign Member of the Ukrainian Academy of Engineering Sciences of Ukraine, a Fellow of American Institute for

Medical and Biological Engineering, a Fellow of Institute of Engineering Technology (IET, UK), a fellow of Asia-Pacific Artificial Intelligence Association and a Fellow of Royal Society for Public Health (RSPH, UK). He received a JSPS Fellowship from the Japanese Government, Changjiang Scholar Professorship from the Chinese Government, faculty fellowship from AFOSR in USA and Andrew Mellon Fellowship from Mellow Foundation in USA.

PUBLICATIONS   (max. 10 works)

List the candidate's major and most recent publications and provide evidence of (scientific) impact where available or appropriate.

According to Google Scholar (as of June 29, 2023): https://scholar.google.com/citations?user=2F-jTfEAAAAJ&hl=en
H-index: 91
i10-index 335
Papers: over 450
Citations: 22720

Ten Recent Major Publications:

1. Deep learning based drug screening for novel coronavirus 2019-nCov, H Zhang, KM Saravanan, Y Yang, MD Hossain, J Li, X Ren, Y Pan, Y Wei, Interdisciplinary Sciences: Computational Life Sciences, 12 (3), 368-376, 2020 (This is a top journal in computational life science. This paper has been cited 152 times in two years).

2. SinNLRR: a robust subspace clustering method for cell type detection by non-negative and low-rank representation, R Zheng, M Li, Z Liang, FX Wu, Y Pan, J Wang, Bioinformatics, 35 (19), 3642-3650, 2019 (This is a top journal in bioinformatics. This paper got 92 citations).

3. 5G-enabled Internet of Things, Y Wu, H Huang, C Wang, Y Pan, CrC Press, 2019 (This book introduces the newest technologies in 5G used in IoT. It has been cited 87 times).

4. Classification of autism spectrum disorder by combining brain connectivity and deep neural network classifier, Y Kong, J Gao, Y Xu, Y Pan, J Wang, J Liu, Neurocomputing, 324, 63-68, 2019 (This is a top journal in neurocomputing. It has been cited 170 times).

5. Prediction of lncRNA–disease associations based on inductive matrix completion, C Lu, M Yang, F Luo, FX Wu, M Li, Y Pan, Y Li, J Wang, Bioinformatics, 34 (19), 3357-3364, 2018 (This is a top journal in bioinformatics. This paper got 154 citations).

6. Automated ICD-9 coding via a deep learning approach, M Li, Z Fei, M Zeng, FX Wu, Y Li, Y Pan, J Wang, IEEE/ACM transactions on computational biology and bioinformatics, 16 (4), 1193-1202, 2018 (This is a top journal in bioinformatics. This paper got 116 citations).

7. Identification of protein complexes by using a spatial and temporal active protein interaction network. M Li, X Meng, R Zheng, FX Wu, Y Li, Y Pan, J Wang, IEEE/ACM transactions on computational biology and bioinformatics, 17 (3) 817-827, 2017 (This is a top journal in bioinformatics. This paper got 98 citations).

8. Generative adversarial networks: A survey toward private and secure applications, Z Cai, Z Xiong, H Xu, P Wang, W Li, Y Pan
ACM Computing Surveys, (CSUR) 54 (6), 1-38, 2021 (This is a top journal in computer science. This paper has been cited 62 times in one year).

9. Protein–protein interactions: detection, reliability assessment and applications, X Peng, J Wang, W Peng, FX Wu, Y Pan, Briefings in bioinformatics, 18 (5), 798-819, 2017 (This is a top journal in bioinformatics. This paper got 78 citations).

10. H Luo, J Wang, M Li, J Luo, X Peng, FX Wu, Y Pan, Drug repositioning based on comprehensive similarity measures and bi-random walk algorithm, Bioinformatics, 32 (17), 2664-2671, 2016 (This is a top journal in bioinformatics. The acceptance rate is very low. The paper has got a lot of attention including 215 citations)

BIOGRAPHY WITH PHOTO:
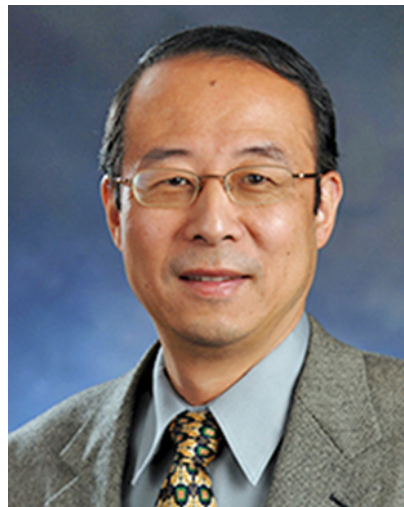
Dr. Yi Pan is currently a Chair Professor and the Dean of Faculty of Computer Science and Control Engineering at Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, China and a Regents' Professor Emeritus at Georgia State University, USA. He served as Chair of Computer Science Department at Georgia State University from 2005 to 2020. He has also served as an Interim Associate Dean and Chair of Biology Department during 2013-2017. Dr. Pan joined Georgia State University in 2000, was promoted to full professor in 2004, named a Distinguished University Professor in 2013 and designated a Regents' Professor (the highest recognition given to a faculty member by the University System of Georgia) in 2015.

Dr. Pan received his B.Eng. and M.Eng. degrees in computer engineering from Tsinghua University, China, in 1982 and 1984, respectively, and his Ph.D. degree in computer science from the University of Pittsburgh, USA, in 1991. His profile has been featured as a

distinguished alumnus in both Tsinghua Alumni Newsletter and University of Pittsburgh CS Alumni Newsletter. Dr. Pan's current research interests mainly include bioinformatics and health informatics using big data analytics, cloud computing, and machine learning technologies. Dr. Pan has published more than 450 papers including over 250 journal papers with more than 100 papers published in IEEE/ACM Transactions/Journals. In addition, he has edited/authored 43 books. His work has been cited more than 18500 times based on Google Scholar and his current h-index is 88. Dr. Pan has served as an editor-in-chief or editorial board member for 20 journals including 7 IEEE Transactions. Currently, he is serving as an Editor-in-Chief of Big Data Mining and Analytics, an Associate Editor-in-Chief of Journal of Computer Science and Technology, Chinese Journal of Electronics, and IEEE/ACM Transactions on Computational Biology and Bioinformatics. He is the recipient of many awards including one IEEE Transactions Best Paper Award, five IEEE and other international conference or journal Best Paper Awards, 4 IBM Faculty Awards, 2 JSPS Senior Invitation Fellowships, IEEE BIBE Outstanding Achievement Award, IEEE Outstanding Leadership Award, NSF Research Opportunity Award, and AFOSR Summer Faculty Research Fellowship. He has organized numerous international conferences and delivered keynote speeches at over 70 international conferences around the world.

Dr. Pan is a Member of the European Academy of Sciences and Arts, Foreign Member of Ukrainian Academy of Engineering Sciences, Fellow of American Institute for Medical and Biological Engineering, Fellow of Institute of Engineering Technology, Fellow of Asia-Pacific Artificial Intelligence Association, and Fellow of Royal Society for Public Health.

PROJECT MANAGEMENT, GRANTS OR FUNDING RECEIVED:

DIRECTING AND PARTICIPATING IN MORE THAN 25 RESEARCH PROJECTS INCLUDING 4 PROJECTS FROM THE NATIONAL NATURAL SCIENCE FOUNDATION OF CHINA, AND MORE THAN 10 FROM US NATIONAL SCIENCE FOUNDATION. THE RESEARCH PROJECTS SUPPORTED BY NATIONAL NATURAL SCIENCE FOUNDATIONS AND US NATIONAL SCIENCE FOUNDATION IN RECENT YEARS ARE SHOWN AS FOLLOWS:

NATIONAL NATURAL SCIENCE FOUNDATION OF CHINA KEY PROGRAM，RESEARCH AND APPLICATION OF KEY TECHNOLOGIES OF INTELLIGENT MEDICAL BIG DATA BASED ON SUPERCOMPUTING AND MULTI-OMICS, 2023-2026，2,570,000 RMB.

SHENZHEN KEY LABORATORY PROGRAM, SHENZHEN KEY LABORATORY OF INTELLIGENT BIOINFORMATICS，2023-2024，5 MILLION RMB.

SHENZHEN PEACOCK TEAM/SHENZHEN HIGH-LEVEL TALENT TEAM, AI-POWERED BIOMEDICAL BIG DATA ANALYSIS AND ITS APPLICATION IN EARLY HIERARCHICAL SCREENING OF ASD, 2021-2025, 25 MILLION RMB.

NATIONAL SCIENCE FOUNDATION (NSF), "SaTC: EDU: COLLABORATIVE: ADVANCING CYBERSECURITY LEARNING THROUGH INQUIRY-BASED LABORATORIES ON A CONTAINER-BASED VIRTUALIZATION PLATFORM," NSF AWARD NUMBER DGU-1912753, CO-PI WITH ZHIPENG CAI, AND WEI LI, TOTAL $481,360 (GSU PORTION $331,360), JULY 1, 2019 - JUNE 30, 2022.

INVEST CANADA ALLIANCE, "A FRAMEWORK FOR SMART DATA TRADING PLATFORM", CO-PI WITH ZHIPENG CAI AND WEI LI, $200,472.00, PROPOSAL NUMBER CON011644 (SP00013642), 01/15/2019-01/15/2022.

HONORS AND AWARDS:

Elected Member of the European Academy of Sciences and Arts in December 9, 2022.

Elected Foreign Member of Ukrainian Academy of Engineering Sciences, February 18, 2021.

Elected Fellow of The American Institute for Medical and Biological Engineering (AIMBE) for outstanding contribution to bioinformatics by developing effective algorithms and tools critically important for progress of biological and medical sciences, Feb. 15, 2021.

Elected Fellow of the Institution of Engineering and Technology (IET), April 14, 2020.

Elected Fellow of Asia-Pacific Artificial Intelligence Association, 2022.

Elected Fellow of the he Royal Society for Public Health (RSPH), April 7, 2020.

Full publications list:

Dr. Pan has published more than 450 papers. See his full list of publications AT
HTTPS://SCHOLAR.GOOGLE.COM/CITATIONS?USER=2F-JTFEAAAAJ&HL=EN

PATENT:

基于可解释性算法和真实世界数据的老年黄斑变性干湿分型方法及装置	Novel methods and devices for dry/wet age-related macular degeneration classification based on explainable AI algorithms and real-world datasets
基于可解释性算法的模型鲁棒性优化方法	Model robustness optimization methods based on explainable AI algorithms
基于先验知识规则抽取和 SHAP 的 AMD 可解释性精准诊断方法	A precise and interpretable diagnosis method for AMD detection based on prior knowledge and rule extraction methods and SHAP algorithms
可解释性老年黄斑变性分类方法、装置及存储介质	Explainable AI classification method, device and storage medium of age-related macular degeneration
基于融合深度学习模型的多源老年性黄斑变性分析系统	A multi-source analysis system of age-related macular degeneration detection based on fusion deep learning models
音频分类方法、装置、终	Audio classification methods, devices, terminal equipment, and

端设备及存储介质	STORAGE MEDIA
自闭症的评估方法、评估装置、电子设备以及存储介质	ASSESSMENT METHODS, ASSESSMENT DEVICES, ELECTRONIC DEVICES, AND STORAGE MEDIA FOR AUTISM
面部表情识别方法、装置、设备及可读存储介质	FACIAL EXPRESSION RECOGNITION METHODS, DEVICES, DEVICES, AND READABLE STORAGE MEDIA
一种自动化干细胞检测方法、系统、终端以及存储介质	AN AUTOMATED STEM CELL DETECTION METHOD, SYSTEM, TERMINAL, AND STORAGE MEDIUM
细胞荧光图像阈值化方法、系统、终端及存储介质	CELL FLUORESCENCE IMAGE THRESHOLDING METHODS, SYSTEMS, TERMINALS, AND STORAGE MEDIA