

# Fei-Pei Lai

## List of Publications by Year in descending order

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148  
papers

1,552  
citations

394421

19  
h-index

477307

29  
g-index

168  
all docs

168  
docs citations

168  
times ranked

1902  
citing authors

#	ARTICLE	IF	CITATIONS
1	In-Hospital and One-Year Mortality and Their Predictors in Patients Hospitalized for First-Ever Chronic Obstructive Pulmonary Disease Exacerbations: A Nationwide Population-Based Study. PLoS ONE, 2014, 9, e114866.	2.5	79
2	Effectiveness of Telemonitoring in Patients with Chronic Obstructive Pulmonary Disease in Taiwan-A Randomized Controlled Trial. Scientific Reports, 2016, 6, 23797.	3.3	56
3	Acute Exacerbation of a Chronic Obstructive Pulmonary Disease Prediction System Using Wearable Device Data, Machine Learning, and Deep Learning: Development and Cohort Study. JMIR MHealth and UHealth, 2021, 9, e22591.	3.7	53
4	Zero-aware asymmetric SRAM cell for reducing cache power in writing zero. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2004, 12, 827-836.	3.1	51
5	Diabetes mellitus in patients with chronic obstructive pulmonary disease-The impact on mortality. PLoS ONE, 2017, 12, e0175794.	2.5	47
6	Validity of ICD9-CM codes to diagnose chronic obstructive pulmonary disease from National Health Insurance claim data in Taiwan. International Journal of COPD, 2018, Volume 13, 3055-3063.	2.3	47
7	Metformin use mitigates the adverse prognostic effect of diabetes mellitus in chronic obstructive pulmonary disease. Respiratory Research, 2019, 20, 69.	3.6	47
8	A secure electronic medical record sharing mechanism in the cloud computing platform. , 2011, , .		41
9	Recurrence predictive models for patients with hepatocellular carcinoma after radiofrequency ablation using support vector machines with feature selection methods. Computer Methods and Programs in Biomedicine, 2014, 117, 425-434.	4.7	36
10	Benchmarking of eight recurrent neural network variants for breath phase and adventitious sound detection on a self-developed open-access lung sound databaseâ€”HF_Lung_V1. PLoS ONE, 2021, 16, e0254134.	2.5	35
11	Confidentiality Protection of Digital Health Records in Cloud Computing. Journal of Medical Systems, 2016, 40, 124.	3.6	33
12	E-Health and Healthcare Enterprise Information System Leveraging Service-Oriented Architecture. Telemedicine Journal and E-Health, 2012, 18, 205-212.	2.8	30
13	Using a smartwatch with real-time feedback improves the delivery of high-quality cardiopulmonary resuscitation by healthcare professionals. Resuscitation, 2019, 140, 16-22.	3.0	29
14	Critical Trio Exome Benefits In-Time Decision-Making for Pediatric Patients With Severe Illnesses*. Pediatric Critical Care Medicine, 2019, 20, 1021-1026.	0.5	29
15	Support vector machine prediction of obstructive sleep apnea in a large-scale Chinese clinical sample. Sleep, 2020, 43, .	1.1	29
16	Wearable-Based Mobile Health App in Gastric Cancer Patients for Postoperative Physical Activity Monitoring: Focus Group Study. JMIR MHealth and UHealth, 2019, 7, e11989.	3.7	28
17	Chronic wound assessment and infection detection method. BMC Medical Informatics and Decision Making, 2019, 19, 99.	3.0	26
18	Automatic ICD-10 Coding and Training System: Deep Neural Network Based on Supervised Learning. JMIR Medical Informatics, 2021, 9, e23230.	2.6	26

#	ARTICLE	IF	CITATIONS
19	A Mobile Phone-Based Approach for Hearing Screening of School-Age Children: Cross-Sectional Validation Study. JMIR MHealth and UHealth, 2019, 7, e12033.	3.7	26
20	Comparison of GATK and DeepVariant by trio sequencing. Scientific Reports, 2022, 12, 1809.	3.3	26
21	CloudDOE: A User-Friendly Tool for Deploying Hadoop Clouds and Analyzing High-Throughput Sequencing Data with MapReduce. PLoS ONE, 2014, 9, e98146.	2.5	24
22	Middleware based Inpatient Healthcare Information System. , 2007, , .		23
23	Design and analysis of low-power cache using two-level filter scheme. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2003, 11, 568-580.	3.1	22
24	Tablet PC-enabled application intervention for patients with gastric cancer undergoing gastrectomy. Computer Methods and Programs in Biomedicine, 2015, 119, 101-109.	4.7	22
25	Epileptic Seizure Detection for Multichannel EEG Signals with Support Vector Machines. , 2011, , .		21
26	Intelligent stock trading system with price trend prediction and reversal recognition using dual-module neural networks. Applied Intelligence, 1993, 3, 225-248.	5.3	20
27	Efficient Group Key Management Protocol with One-Way Key Derivation. , 2005, , .		20
28	Threat Analysis for Wearable Health Devices and Environment Monitoring Internet of Things Integration System. IEEE Access, 2019, 7, 144983-144994.	4.2	19
29	Web-Based Newborn Screening System for Metabolic Diseases: Machine Learning Versus Clinicians. Journal of Medical Internet Research, 2013, 15, e98.	4.3	19
30	Improvement of heart rate variability after decreased insulin resistance after sleeve gastrectomy for morbidly obesity patients. Surgery for Obesity and Related Diseases, 2015, 11, 557-563.	1.2	18
31	A novel depth estimation algorithm of chest compression for feedback of high-quality cardiopulmonary resuscitation based on a smartwatch. Journal of Biomedical Informatics, 2018, 87, 60-65.	4.3	18
32	Panic Attack Prediction Using Wearable Devices and Machine Learning: Development and Cohort Study. JMIR Medical Informatics, 2022, 10, e33063.	2.6	18
33	RSV pneumonia with or without bacterial co-infection among healthy children. Journal of the Formosan Medical Association, 2022, 121, 687-693.	1.7	17
34	Modified Bidirectional Encoder Representations From Transformers Extractive Summarization Model for Hospital Information Systems Based on Character-Level Tokens (AlphaBERT): Development and Performance Evaluation. JMIR Medical Informatics, 2020, 8, e17787.	2.6	17
35	The Prevalence and Impact of Fake News on COVID-19 Vaccination in Taiwan: Retrospective Study of Digital Media. Journal of Medical Internet Research, 2022, 24, e36830.	4.3	17
36	A Unified Framework for Automatic Detection of Wound Infection with Artificial Intelligence. Applied Sciences (Switzerland), 2020, 10, 5353.	2.5	16

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37	Deep learning approach based on superpixel segmentation assisted labeling for automatic pressure ulcer diagnosis. PLoS ONE, 2022, 17, e0264139.	2.5	16
38	Total gastrectomy improves glucose metabolism on gastric cancer patients: a nationwide population-based study. Surgery for Obesity and Related Diseases, 2016, 12, 635-641.	1.2	14
39	Frequency and spectrum of actionable pathogenic secondary findings in Taiwanese exomes. Molecular Genetics & Genomic Medicine, 2020, 8, e1455.	1.2	14
40	Disease Concept-Embedding Based on the Self-Supervised Method for Medical Information Extraction from Electronic Health Records and Disease Retrieval: Algorithm Development and Validation Study. Journal of Medical Internet Research, 2021, 23, e25113.	4.3	14
41	A Telesurveillance System With Automatic Electrocardiogram Interpretation Based on Support Vector Machine and Rule-Based Processing. JMIR Medical Informatics, 2015, 3, e21.	2.6	14
42	A Functional Link Network With Higher Order Statistics for Signal Enhancement. IEEE Transactions on Signal Processing, 2006, 54, 4821-4826.	5.3	13
43	Design of low latency on-chip communication based on hybrid NoC architecture. , 2010, , .		13
44	A Smartphone-Based Approach to Screening for Sudden Sensorineural Hearing Loss: Cross-Sectional Validity Study. JMIR MHealth and UHealth, 2020, 8, e23047.	3.7	13
45	Artificial Intelligence- Assisted Early Detection of Retinitis Pigmentosa - the Most Common Inherited Retinal Degeneration. Journal of Digital Imaging, 2021, 34, 948-958.	2.9	12
46	A Web-Based, Hospital-Wide Health Care-Associated Bloodstream Infection Surveillance and Classification System: Development and Evaluation. JMIR Medical Informatics, 2015, 3, e31.	2.6	12
47	A pressure ulcers assessment system for diagnosis and decision making using convolutional neural networks. Journal of the Formosan Medical Association, 2022, 121, 2227-2236.	1.7	12
48	Star-type architecture with low transmission latency for a 2D mesh NOC. , 2010, , .		10
49	Insider Collusion Attack on Privacy-Preserving Kernel-Based Data Mining Systems. IEEE Access, 2016, 4, 2244-2255.	4.2	10
50	Visualization and Sonification of Long-Term Epilepsy Electroencephalogram Monitoring. Journal of Medical and Biological Engineering, 2018, 38, 943-952.	1.8	10
51	A Web-Based Multidrug-Resistant Organisms Surveillance and Outbreak Detection System with Rule-Based Classification and Clustering. Journal of Medical Internet Research, 2012, 14, e131.	4.3	10
52	Design and Analysis of Enhanced Grouping DCF Scheme for the MAC Layer Enhancement of 802.11n with Ultra-high Data Rate. , 2007, , .		9
53	A priority based output arbiter for NoC router. , 2011, , .		9
54	GA-SVM modeling of multiclass seizure detector in epilepsy analysis system using cloud computing. Soft Computing, 2017, 21, 2139-2149.	3.6	9

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55	Preoperative biliary drainage associated with biliary stricture after pancreaticoduodenectomy: a population-based study. <i>Journal of Hepato-Biliary-Pancreatic Sciences</i> , 2018, 25, 308-318.	2.6	9
56	Surgical Wounds Assessment System for Self-Care. <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i> , 2020, 50, 5076-5091.	9.3	9
57	Requirements specification and analysis of digital systems using fuzzy and marked Petri nets. <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , 1998, 28, 748-754.	5.0	8
58	Leukemia cancer classification based on Support Vector Machine. , 2010, , .		8
59	The necessity of abdominal drainage for patients with complicated appendicitis undergoing laparoscopic appendectomy: a retrospective cohort study. <i>World Journal of Emergency Surgery</i> , 2022, 17, 16.	5.0	8
60	Predicting Postoperative Mortality With Deep Neural Networks and Natural Language Processing: Model Development and Validation. <i>JMIR Medical Informatics</i> , 2022, 10, e38241.	2.6	8
61	Ultra-fast Epileptic seizure detection using EMD based on multichannel electroencephalogram. , 2013, , .		7
62	An Implementation of Interactive Healthy Eating Index and Healthcare System on Mobile Platform in College Student Samples. <i>IEEE Access</i> , 2018, 6, 71651-71661.	4.2	7
63	Applying time-constraint access control of personal health record in cloud computing. <i>Enterprise Information Systems</i> , 2020, 14, 266-281.	4.7	7
64	Clinical characteristics of influenza with or without <i>Streptococcus pneumoniae</i> co-infection in children. <i>Journal of the Formosan Medical Association</i> , 2022, 121, 950-957.	1.7	7
65	A bipartition-codec architecture to reduce power in pipelined circuits. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2001, 20, 343-348.	2.7	6
66	Design and Enhance a Dynamic Healthcare Portal Site. , 2007, , .		6
67	Characteristics of Harmonic Indexes of the Arterial Blood Pressure Waveform in Type 2 Diabetes Mellitus. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 638.	4.1	6
68	The intracranial tumor segmentation challenge: Contour tumors on brain MRI for radiosurgery. <i>NeuroImage</i> , 2021, 244, 118585.	4.2	6
69	Deep Learning-Based Segmentation of Various Brain Lesions for Radiosurgery. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 9180.	2.5	6
70	Deep Learning-Assisted Burn Wound Diagnosis: Diagnostic Model Development Study. <i>JMIR Medical Informatics</i> , 2021, 9, e22798.	2.6	6
71	Lagrange interpolation-driven access control mechanism: Towards secure and privacy-preserving fusion of personal health records. <i>Knowledge-Based Systems</i> , 2022, 236, 107679.	7.1	6
72	Application of multiple deep learning models for automatic burn wound assessment. <i>Burns</i> , 2023, 49, 1039-1051.	1.9	6

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73	Efficient exploitation of instruction-level parallelism for superscalar processors by the conjugate register file scheme. IEEE Transactions on Computers, 1996, 45, 278-293.	3.4	5
74	Ubiquitous mobile personal health system based on cloud computing. , 2011, , .		5
75	FinancialCloud: Open Cloud Framework of Derivative Pricing. , 2013, , .		5
76	Identifying Unmet Treatment Needs for Patients With Osteoporotic Fracture: Feasibility Study for an Electronic Clinical Surveillance System. Journal of Medical Internet Research, 2018, 20, e142.	4.3	5
77	Physician decision support system for idiopathic sudden sensorineural hearing loss patients. Journal of the Chinese Medical Association, 2021, 84, 101-107.	1.4	5
78	Adsmith: an efficient object-based distributed shared memory system on PVM. , 0, , .		4
79	A design of small-area automatic wheelchair. , 0, , .		4
80	A Multiclass Classification Tool Using Cloud Computing Architecture. , 2012, , .		4
81	Continuous, personalized healthcare integrated platform. , 2012, , .		4
82	Brain Tumor Segmentation Using U-Net and Edge Contour Enhancement. , 2019, , .		4
83	An effective output-oriented algorithm for low power multipartition architecture. , 0, , .		4
84	Evaluation of the Need for Intensive Care in Children With Pneumonia: Machine Learning Approach. JMIR Medical Informatics, 2022, 10, e28934.	2.6	4
85	Automatic International Classification of Diseases Coding System: Deep Contextualized Language Model With Rule-Based Approaches. JMIR Medical Informatics, 2022, 10, e37557.	2.6	4
86	The complementary relationship of interprocedural register allocation and inlining. International Journal of Parallel Programming, 1994, 22, 409-434.	1.5	3
87	Designing platform-based system power management on a smart tablet appliance. , 0, , .		3
88	CAM puzzle: A power model and function-based circuit segment method of Content Addressable Memory. , 2010, , .		3
89	Robust dermatological wound image segmentation in clinical photos. , 2015, , .		3
90	A cross-hospital cost and quality assessment system by extracting frequent physician order set from a nationwide Health Insurance Research Database. Computer Methods and Programs in Biomedicine, 2015, 120, 142-153.	4.7	3

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91	Impact of tobacco-related chronic obstructive pulmonary disease on developmental trajectories of comorbidities in the Taiwan population. <i>Scientific Reports</i> , 2020, 10, 21025.	3.3	3
92	Reducing procedure call overhead: optimizing register usage at procedure calls. , 0, , .		2
93	A simple tree pattern matching algorithm for code generator. , 0, , .		2
94	FACE: Fine-tuned Architecture Codesign Environment for ASIP Development. <i>Design Automation for Embedded Systems</i> , 1999, 4, 329-351.	1.0	2
95	A constant size rekeying message framework for secure multicasting. , 0, , .		2
96	E-Vanguard for Emergency - a wireless system for rescue and healthcare. , 0, , .		2
97	Mobile health information system integrated with voip technology in a wireless hospital. , 2006, , .		2
98	Threshold Signature Scheme Resistible for Conspiracy Attack. , 2006, , .		2
99	A web-based hospital-acquired infection surveillance information system. , 2010, , .		2
100	A Web-based Medical Emergency Guiding System. , 2012, , .		2
101	The development of a real-time valuation service of financial derivatives. , 2012, , .		2
102	A clinical decision and support system with automatically ECG classification in telehealthcare. , 2014, , .		2
103	High-Performance Multiclass Classification Framework Using Cloud Computing Architecture. <i>Journal of Medical and Biological Engineering</i> , 2015, 35, 795-802.	1.8	2
104	A nomogram for estimating intracranial pressure using acute subdural hematoma thickness and midline shift. <i>Scientific Reports</i> , 2020, 10, 21787.	3.3	2
105	CT-Based Collision Prediction Software for External-Beam Radiation Therapy. <i>Frontiers in Oncology</i> , 2021, 11, 617007.	2.8	2
106	DNA mixture interpretation using linear regression and neural networks on massively parallel sequencing data of single nucleotide polymorphisms. <i>Australian Journal of Forensic Sciences</i> , 0, , 1-13.	1.2	2
107	Clinical characteristics of recurrent pneumonia in children with or without underlying diseases. <i>Journal of the Formosan Medical Association</i> , 2022, 121, 1073-1080.	1.7	2
108	Using Text Content From Coronary Catheterization Reports to Predict 5-Year Mortality Among Patients Undergoing Coronary Angiography: A Deep Learning Approach. <i>Frontiers in Cardiovascular Medicine</i> , 2022, 9, 800864.	2.4	2

#	ARTICLE	IF	CITATIONS
109	Exploiting Instruction-level Parallelism With The Conjugate Register File Scheme. , 0, , .		1
110	Fast block motion estimation using adaptive simulated annealing. , 0, , .		1
111	Unified fully-pipelined VLSI implementations of two-dimensional discrete trigonometric transforms. , 0, , .		1
112	An entropy-based algorithm to reduce area overhead for bipartition-codec architecture. , 0, , .		1
113	Cache design for eliminating the address translation bottleneck and reducing the tag area cost. , 0, , .		1
114	An implementation of public key cryptosystem TTM with linear time complexity for decryption. , 2003, , .		1
115	Optimizing centralized secure group communications with binary key tree recomposition. , 0, , .		1
116	WLC34-5: GDCF: Grouping DCF for the MAC layer enhancement of 802.11. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	1
117	A Newborn Screening System Based on Service-Oriented Architecture Embedded Support Vector Machine. , 2008, , .		1
118	Newborn Screening for Phenylketonuria: Machine Learning vs Clinicians. , 2012, , .		1
119	A web-based telehealthcare system with mobile application and data analysis for diet people. , 2013, , .		1
120	An accurate power analysis model based on MAC layer for the DCF of 802.11n. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'uan, 2013, 36, 17-26.	1.1	1
121	CHT cloud orchestration: An integrated cloud system of virtualization platform. , 2014, , .		1
122	Smart computing mechanism for noise detection and elimination in ECG signal. , 2017, , .		1
123	A Comprehensive Overview of Government Hacking Worldwide. IEEE Access, 2018, 6, 55053-55073.	4.2	1
124	A Web-Based Clinical System for Cohort Surveillance of Specific Clinical Effectiveness and Safety Outcomes: A Cohort Study of Non-Vitamin K Antagonist Oral Anticoagulants and Warfarin. JMIR Medical Informatics, 2019, 7, e13329.	2.6	1
125	Improving inpatient fall prevention strategies using interactive data repository information system. Studies in Health Technology and Informatics, 2014, 201, 87-93.	0.3	1
126	Mobile time banking on blockchain system development for community elderly care. Journal of Ambient Intelligence and Humanized Computing, 2022, , 1-13.	4.9	1



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127	A BIST ram architecture with parallel testing in a microprogram rom. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 1993, 16, 685-690.	1.1	0
128	A superscalar microarchitecture supporting aggressive instruction scheduling. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 1994, 17, 151-167.	1.1	0
129	Hybrid parallel circuit simulation approaches. , 0, , .		0
130	Synthesis of partition-codec architecture for low power and small area circuit design. , 0, , .		0
131	A distributed key management protocol for dynamic groups. , 0, , .		0
132	A Web Redirection Service for Variant Chinese Domain Name Resolution. , 0, , .		0
133	A Healthcare Pattern Collection for Rural Telemedicine Services. , 2006, , .		0
134	Location-aware healthcare in u-hospitals. , 2006, , .		0
135	Mobile health information system integrated with voip technology in a wireless hospital. , 0, , .		0
136	Location-aware healthcare in u-hospitals. , 0, , .		0
137	A Healthcare Pattern Collection for Rural Telemedicine Services. , 0, , .		0
138	A Preliminary Study of Medical Image Distributed Intelligent Access Integrated with Electronic Medical Records System for Brain Degenerative Disease. , 2007, , .		0
139	Discharge summary note based on service-oriented architecture. , 2010, , .		0
140	Distinguishable error detection method for Network on Chip. , 2010, , .		0
141	An early design estimation approach to synthesize the low-power pre-computation-based content addressable memory. , 2011, , .		0
142	Mobile nursing cart with software defined radio for healthcare enterprises. , 2011, , .		0
143	Processing and analysis of imbalanced liver cancer patient data by case-based reasoning. , 2014, , .		0
144	Characteristics of 5-year surveillance system with synchronous telehealthcare in Taiwan. , 2015, , .		0

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145	Mobile Social Service User Identification Framework Based on Action-Characteristic Data Retention. IEEE Access, 2020, 8, 127748-127767.	4.2	0
146	A Fast Power Estimation Method for Content Addressable Memory by Using SystemC Simulation Environment. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2013, E96.A, 1723-1729.	0.3	0
147	The association of anemia with the clinical outcomes of community-acquired pneumonia in children. Pediatric Pulmonology, 2022, , .	2.0	0
148	Design and Enhance a Dynamic Healthcare Portal Site. , 2007, , .		0