Sungroh Yoon

List of Publications by Citations

95 papers	2,120 citations	21 h-index	44 g-index
109 ext. papers	3,006 ext. citations	7 avg, IF	5.79 L-index

#	Paper	IF	Citations
95	Deep learning in bioinformatics. *Briefings in Bioinformatics*, **2017**, 18, 851-869	13.4	544
94	Deep learning improves prediction of CRISPR-Cpf1 guide RNA activity. *Nature Biotechnology*, **2018**, 36, 239-241	44.5	137
93	Got target? Computational methods for microRNA target prediction and their extension. *Experimental and Molecular Medicine*, **2010**, 42, 233-44	12.8	118
92	How Generative Adversarial Networks and Their Variants Work. *ACM Computing Surveys*, **2019**, 52, 1-43	13.4	106
91	Prediction of regulatory modules comprising microRNAs and target genes. *Bioinformatics*, **2005**, 21 Suppl 2, ii93-100	7.2	99
90	Predicting the efficiency of prime editing guide RNAs in human cells. *Nature Biotechnology*, **2021**, 39, 198-206	44.5	68
89	High-throughput analysis of the activities of xCas9, SpCas9-NG and SpCas9 at matched and mismatched target sequences in human cells. *Nature Biomedical Engineering*, **2020**, 4, 111-124	19	60
88	Biometric Authentication Using Noisy Electrocardiograms Acquired by Mobile Sensors. *IEEE Access*, **2016**, 4, 1266-1273	3.5	58
87	Prediction of the sequence-specific cleavage activity of Cas9 variants. *Nature Biotechnology*, **2020**, 38, 1328-1336	44.5	57
86	Computational identification of microRNAs and their targets. *Birth Defects Research Part C: Embryo Today Reviews*, **2006**, 78, 118-28		53
85	SpCas9 activity prediction by DeepSpCas9, a deep learning-based model with high generalization performance. *Science Advances*, **2019**, 5, eaax9249	14.3	52
84	LncRNAnet: long non-coding RNA identification using deep learning. *Bioinformatics*, **2018**, 34, 3889-3897	7.2	46
83	Discovering coherent biclusters from gene expression data using zero-suppressed binary decision diagrams. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, **2005**, 2, 339-54	3	38
82	DUDE-Seq: Fast, flexible, and robust denoising for targeted amplicon sequencing. *PLoS ONE*, **2017**, 12, e0181463	3.7	38
81	deepTarget **2016**,		38
80	CASPER: context-aware scheme for paired-end reads from high-throughput amplicon sequencing. *BMC Bioinformatics*, **2014**, 15 Suppl 9, S10	3.6	33
79	Sequence-specific prediction of the efficiencies of adenine and cytosine base editors. *Nature Biotechnology*, **2020**, 38, 1037-1043	44.5	32

78	Large-scale machine learning of media outlets for understanding public reactions to nation-wide viral infection outbreaks. *Methods*, **2017**, 129, 50-59	4.6	29
77	Fast and Efficient Information Transmission with Burst Spikes in Deep Spiking Neural Networks **2019**,		28
76	Comprehensive ensemble in QSAR prediction for drug discovery. *BMC Bioinformatics*, **2019**, 20, 521	3.6	28
75	. *IEEE Access*, **2019**, 7, 185458-185468	3.5	21
74	IO Workload Characterization Revisited: A Data-Mining Approach. *IEEE Transactions on Computers*, **2014**, 63, 3026-3038	2.5	18
73	Clustering protein environments for function prediction: finding PROSITE motifs in 3D. *BMC Bioinformatics*, **2007**, 8 Suppl 4, S10	3.6	18
72	PuVAE: A Variational Autoencoder to Purify Adversarial Examples. *IEEE Access*, **2019**, 7, 126582-126593	3.5	17
71	Ensemble learning can significantly improve human microRNA target prediction. *Methods*, **2014**, 69, 220-226	4.6	16
70	DeepCCI **2017**,		16
69	Entropy-based analysis and bioinformatics-inspired integration of global economic information transfer. *PLoS ONE*, **2013**, 8, e51986	3.7	16
68	Learned Embeddings from Deep Learning to Visualize and Predict Protein Sets. *Current Protocols*, **2021**, 1, e113		15
67	High-Dimensional Fused Lasso Regression Using Majorization-Minimization and Parallel Processing. *Journal of Computational and Graphical Statistics*, **2015**, 24, 121-153	1.4	13
66	Prediction of pathologic femoral fractures in patients with lung cancer using machine learning algorithms: Comparison of computed tomography-based radiological features with clinical features versus without clinical features. *Journal of Orthopaedic Surgery*, **2017**, 25, 2309499017716243	1.4	13
65	T2FSNN: Deep Spiking Neural Networks with Time-to-first-spike Coding **2020**,		13
64	Frame-to-Frame Aggregation of Active Regions in Web Videos for Weakly Supervised Semantic Segmentation **2019**,		13
63	. *IEEE Access*, **2021**, 9, 120043-120065	3.5	13
62	Recording of elapsed time and temporal information about biological events using Cas9. *Cell*, **2021**, 184, 1047-1063.e23	56.2	12
61	Deep learning based low-cost high-accuracy diagnostic framework for dementia using comprehensive neuropsychological assessment profiles. *BMC Geriatrics*, **2018**, 18, 234	4.1	12

60	. *IEEE Access*, **2019**, 7, 96495-96505	3.5	11
59	Application-Support Particle Filter for Dynamic Voltage Scaling of Multimedia Applications. *IEEE Transactions on Computers*, **2012**, 61, 1256-1269	2.5	10
58	Generation of a more efficient prime editor 2 by addition of the Rad51 DNA-binding domain. *Nature Communications*, **2021**, 12, 5617	17.4	10
57	Patch SVDD: Patch-Level SVDD for Anomaly Detection and Segmentation. *Lecture Notes in Computer Science*, **2021**, 375-390	0.9	10
56	Exploiting Compression-Induced Internal Fragmentation for Power-Off Recovery in SSD. *IEEE Transactions on Computers*, **2016**, 65, 1720-1733	2.5	9
55	Multi-Threaded Hierarchical Clustering by Parallel Nearest-Neighbor Chaining. *IEEE Transactions on Parallel and Distributed Systems*, **2015**, 26, 2534-2548	3.7	9
54	Single-image deblurring with neural networks: A comparative survey. *Computer Vision and Image Understanding*, **2021**, 203, 103134	4.3	9
53	The message passing neural networks for chemical property prediction on SMILES. *Methods*, **2020**, 179, 65-72	4.6	8
52	Co-clustering: a versatile tool for data analysis in biomedical informatics. *IEEE Transactions on Information Technology in Biomedicine*, **2007**, 11, 493-4		8
51	Adversarial Vertex Mixup: Toward Better Adversarially Robust Generalization **2020**,		8
50	Large-Scale Structured Sparsity via Parallel Fused Lasso on Multiple GPUs. *Journal of Computational and Graphical Statistics*, **2017**, 26, 851-864	1.4	7
49	NC-Link: A New Linkage Method for Efficient Hierarchical Clustering of Large-Scale Data. *IEEE Access*, **2017**, 1-1	3.5	7
48	HiComet: a high-throughput comet analysis tool for large-scale DNA damage assessment. *BMC Bioinformatics*, **2018**, 19, 44	3.6	7
47	GPU-based acceleration of an RNA tertiary structure prediction algorithm. *Computers in Biology and Medicine*, **2013**, 43, 1011-22	7	7
46	Exome-based genome-wide association study and risk assessment using genetic risk score to prostate cancer in the Korean population. *Oncotarget*, **2017**, 8, 43934-43943	3.3	7
45	NAND Flash Memory With Multiple Page Sizes for High-Performance Storage Devices. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2016**, 24, 764-768	2.6	6
44	Electroencephalographic Resting-State Functional Connectivity of Benign Epilepsy with Centrotemporal Spikes. *Journal of Clinical Neurology (Korea*, **2019**, 15, 211-220	1.7	6
43	End-to-End Representation Learning for Chemical-Chemical Interaction Prediction. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, **2019**, 16, 1436-1447	3	6

42	Learning-Based Instantaneous Drowsiness Detection Using Wired and Wireless Electroencephalography. *IEEE Access*, **2019**, 7, 146390-146402	3.5	6
41	Prediction and Analysis of Human microRNA Regulatory Modules. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2005**, 2005, 4799-802		5
40	The use of exome genotyping to predict pathological Gleason score upgrade after radical prostatectomy in low-risk prostate cancer patients. *PLoS ONE*, **2014**, 9, e104146	3.7	5
39	Regularization and Kernelization of the Maximin Correlation Approach. *IEEE Access*, **2016**, 4, 1385-1392	3.5	4
38	Development and External Validation of the Korean Prostate Cancer Risk Calculator for High-Grade Prostate Cancer: Comparison with Two Western Risk Calculators in an Asian Cohort. *PLoS ONE*, **2017**, 12, e0168917	3.7	4
37	. *IEEE Access*, **2018**, 6, 27671-27680	3.5	4
36	Mining internet media for monitoring changes of public emotions about infectious diseases **2016**,		3
35	Methodology for Big Data Analysis Using Data from National Health Insurance Service: Preliminary Methodologic Study and Review about the Relationship between Sinus Surgery and Asthma. *Journal of Rhinology*, **2015**, 22, 28		3
34	A clinicogenetic model to predict lymph node invasion by use of genome-based biomarkers from exome arrays in prostate cancer patients. *Korean Journal of Urology*, **2015**, 56, 109-16		3
33	Genetic risk score to predict biochemical recurrence after radical prostatectomy in prostate cancer: prospective cohort study. *Oncotarget*, **2017**, 8, 75979-75988	3.3	3
32	Interpretation of NLP models through input marginalization **2020**,		3
31	Towards Fast and Accurate Object Detection in Bio-Inspired Spiking Neural Networks Through Bayesian Optimization. *IEEE Access*, **2021**, 9, 2633-2643	3.5	3
30	Pre-Training of Deep Bidirectional Protein Sequence Representations With Structural Information. *IEEE Access*, **2021**, 9, 123912-123926	3.5	3
29	Machine learning-based identification of endogenous cellular microRNA sponges against viral microRNAs. *Methods*, **2017**, 129, 33-40	4.6	2
28	CloudSocket: Smart grid platform for datacenters **2016**,		2
27	Energy-Efficient Inference Accelerator for Memory-Augmented Neural Networks on an FPGA **2019**,		2
26	AnomiGAN: Generative Adversarial Networks for Anonymizing Private Medical Data **2019**,		2
25	SpCas9 activity prediction by DeepSpCas9, a deep learning-based model with unparalleled generalization performance		2

24	Protein transfer learning improves identification of heat shock protein families. *PLoS ONE*, **2021**, 16, e0251865	3.7	2
23	Feature Concentration for Supervised and Semisupervised Learning With Unbalanced Datasets in Visual Inspection. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 7620-7630	8.9	2
22	Imbalanced Data Classification via Cooperative Interaction Between Classifier and Generator. *IEEE Transactions on Neural Networks and Learning Systems*, **2021**, PP,	10.3	2
21	DNA Steganalysis Using Deep Recurrent Neural Networks **2018**,		2
20	An effective pre-store/pre-load method exploiting intra-request idle time of NAND flash-based storage devices. *Microprocessors and Microsystems*, **2017**, 50, 222-236	2.4	1
19	Genome-wide detection of allelic genetic variation to predict biochemical recurrence after radical prostatectomy among prostate cancer patients using an exome SNP chip. *Journal of Cancer Research and Clinical Oncology*, **2015**, 141, 1493-501	4.9	1
18	Anomaly Detection by Learning Dynamics From a Graph. *IEEE Access*, **2020**, 8, 64356-64365	3.5	1
17	MUGAN: Multi-GPU accelerated AmpliconNoise server for rapid microbial diversity assessment. *Bioinformatics*, **2018**,	7.2	1
16	Prediction of clinically significant prostate cancer using polygenic risk models in Asians.. *Investigative and Clinical Urology*, **2022**, 63, 42-52	1.9	1
15	A genetic variant in SLC28A3, rs56350726, is associated with progression to castration-resistant prostate cancer in a Korean population with metastatic prostate cancer. *Oncotarget*, **2017**, 8, 96893-96902	3.3	1
14	Development and Validation of a Next-Generation Sequencing-Based Multigene Assay to Predict the Prognosis of Estrogen Receptor-Positive, HER2-Negative Breast Cancer. *Clinical Cancer Research*, **2020**, 26, 6513-6522	12.9	1
13	DNA Privacy: Analyzing Malicious DNA Sequences using Deep Neural Networks. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, **2020**, PP,	3	1
12	Learn2Evade: Learning-Based Generative Model for Evading PDF Malware Classifiers. *IEEE Transactions on Artificial Intelligence*, **2021**, 1-1	4.7	1
11	. *IEEE Access*, **2021**, 9, 6453-6464	3.5	1
10	CloudSocket: Fine-Grained Power Sensing System for Datacenters. *IEEE Access*, **2018**, 6, 49601-49610	3.5	1
9	Flexible Dual-Branched Message-Passing Neural Network for a Molecular Property Prediction.. *ACS Omega*, **2022**, 7, 4234-4244	3.9	0
8	Memory-Augmented Neural Networks on FPGA for Real-Time and Energy-Efficient Question Answering. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2021**, 29, 162-175	2.6	0
7	Genome-wide detection of allelic genetic variation to predict advanced-stage prostate cancer after radical prostatectomy using an exome SNP chip. *Urologic Oncology: Seminars and Original Investigations*, **2015**, 33, 385.e7-13	2.8	

List of Publications

6	Design of a bitmap-based QoS-aware memory controller for a packet memory. *IEICE Electronics Express*, **2014**, 11, 20130983-20130983	0.5
5	PixelSteganalysis: Pixel-wise Hidden Information Removal with Low Visual Degradation. *IEEE Transactions on Dependable and Secure Computing*, **2021**, 1-1	3.9
4	NASCUP: Nucleic Acid Sequence Classification by Universal Probability. *IEEE Access*, **2021**, 9, 162779-162791	3.5
3	60-2: Self-supervised Perceptual Motion Deblurring using a Conditional Generative Neural Network Guided by Optical Flow. *Digest of Technical Papers SID International Symposium*, **2020**, 51, 893-896	0.5
2	Compensating Nonuniform OLED Pixel Brightness in a Vertical Blanking Interval by Learning TFT Characteristics. *IEEE Transactions on Electron Devices*, **2021**, 68, 3396-3402	2.9
1	Data Embedding Scheme for Efficient Program Behavior Modeling With Neural Networks. *IEEE Transactions on Emerging Topics in Computational Intelligence*, **2022**, 1-12	4.1