Hubert Pâ€¯h Shum

List of Publications by Year
in descending order

111 papers	2,006 citations	361045 20 h-index	301761 39 g-index
115 all docs	115 docs citations	115 times ranked	1835 citing authors

#	Article	IF	Citations
1	Real-Time Posture Reconstruction for Microsoft Kinect. IEEE Transactions on Cybernetics, 2013, 43, 1357-1369.	6.2	227
2	Validation of an ergonomic assessment method using Kinect data in real workplace conditions. Applied Ergonomics, 2017, 65, 562-569.	1.7	144
3	From A to Z: Wearable technology explained. Maturitas, 2018, 113, 40-47.	1.0	126
4	Differential evolution algorithm as a tool for optimal feature subset selection in motor imagery EEG. Expert Systems With Applications, 2017, 90, 184-195.	4.4	119
5	Filtering techniques for channel selection in motor imagery EEG applications: a survey. Artificial Intelligence Review, 2020, 53, 1207-1232.	9.7	98
6	Improving posture classification accuracy for depth sensor-based human activity monitoring in smart environments. Computer Vision and Image Understanding, 2016, 148, 97-110.	3.0	58
7	A Secure Authentication Protocol for Multi-Server-Based E-Healthcare Using a Fuzzy Commitment Scheme. IEEE Access, 2019, 7, 12557-12574.	2.6	54
8	Action Recognition From Arbitrary Views Using Transferable Dictionary Learning. IEEE Transactions on Image Processing, 2018, 27, 4709-4723.	6.0	51
9	Interaction patches for multi-character animation. ACM Transactions on Graphics, 2008, 27, 1-8.	4.9	49
10	Emulating human perception of motion similarity. Computer Animation and Virtual Worlds, 2008, 19, 211-221.	0.7	46
11	Abnormal Infant Movements Classification With Deep Learning on Pose-Based Features. IEEE Access, 2020, 8, 51582-51592.	2.6	45
12	Spatio-Temporal Manifold Learning for Human Motions via Long-Horizon Modeling. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 216-227.	2.9	39
13	Simulating Multiple Character Interactions with Collaborative and Adversarial Goals. IEEE Transactions on Visualization and Computer Graphics, 2012, 18, 741-752.	2.9	38
14	Kinect Posture Reconstruction Based on a Local Mixture of Gaussian Process Models. IEEE Transactions on Visualization and Computer Graphics, 2016, 22, 2437-2450.	2.9	37
15	Simulating interactions of avatars in high dimensional state space. , 2008, , .		34
16	Real-time physical modelling of character movements with microsoft kinect. , 2012, , .		30
17	Simulating competitive interactions using singly captured motions. , 2007, , .		27
18	Filtered pose graph for efficient kinect pose reconstruction. Multimedia Tools and Applications, 2017, 76, 4291-4312.	2.6	27

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19	Interactive Formation Control in Complex Environments. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 211-222.	2.9	25
20	Illumination-Aware Multi-Task GANs for Foreground Segmentation. IEEE Access, 2019, 7, 10976-10986.	2.6	25
21	Towards sparse rule base generation for fuzzy rule interpolation. , 2016, , .		23
22	Machine Learning Algorithms for Network Intrusion Detection. Intelligent Systems Reference Library, 2019, , 151-179.	1.0	23
23	Tracking the translational and rotational movement of the ball using high-speed camera movies. , 2005, , .		22
24	Discriminative Semantic Subspace Analysis for Relevance Feedback. IEEE Transactions on Image Processing, 2016, 25, 1275-1287.	6.0	21
25	Inverse dynamics based on occlusion-resistant Kinect data: Is it usable for ergonomics?. International Journal of Industrial Ergonomics, 2017, 61, 71-80.	1.5	21
26	Topology Aware Dataâ€Driven Inverse Kinematics. Computer Graphics Forum, 2013, 32, 61-70.	1.8	20
27	Posture reconstruction using Kinect with a probabilistic model. , 2014, , .		19
28	Coordinated Crowd Simulation With Topological Scene Analysis. Computer Graphics Forum, 2016, 35, 120-132.	1.8	19
29	Human action recognition via skeletal and depth based feature fusion. , 2016, , .		18
30	Experience-based rule base generation and adaptation for fuzzy interpolation. , 2016, , .		17
31	3D car shape reconstruction from a contour sketch using GAN and lazy learning. Visual Computer, 2022, 38, 1317-1330.	2.5	16
32	Motion adaptation for humanoid robots in constrained environments. , 2013, , .		15
33	LMZMPM: Local Modified Zernike Moment Per-Unit Mass for Robust Human Face Recognition. IEEE Transactions on Information Forensics and Security, 2021, 16, 495-509.	4.5	15
34	A Quadruple Diffusion Convolutional Recurrent Network for Human Motion Prediction. IEEE Transactions on Circuits and Systems for Video Technology, 2021, 31, 3417-3432.	5.6	14
35	TSK Inference with Sparse Rule Bases. Advances in Intelligent Systems and Computing, 2017, , 107-123.	0.5	14
36	A Pose-Based Feature Fusion and Classification Framework for the Early Prediction of Cerebral Palsy in Infants. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 8-19.	2.7	14

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37	Interaction-Aware Decision-Making for Automated Vehicles Using Social Value Orientation. IEEE Transactions on Intelligent Vehicles, 2023, 8, 1339-1349.	9.4	14
38	Automatic Musculoskeletal and Neurological Disorder Diagnosis With Relative Joint Displacement From Human Gait. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 2387-2396.	2.7	13
39	Multi-layer Lattice Model for Real-Time Dynamic Character Deformation. Computer Graphics Forum, 2015, 34, 99-109.	1.8	12
40	Posture-based and action-based graphs for boxing skill visualization. Computers and Graphics, 2017, 69, 104-115.	1.4	12
41	Multiview discriminative marginal metric learning for makeup face verification. Neurocomputing, 2019, 333, 339-350.	3.5	12
42	Interaction patches for multi-character animation. , 2008, , .		11
43	Interaction-Based Human Activity Comparison. IEEE Transactions on Visualization and Computer Graphics, 2020, 26, 2620-2633.	2.9	11
44	GAN-based reactive motion synthesis with class-aware discriminators for humanâ€“human interaction. Computers and Graphics, 2022, 102, 634-645.	1.4	11
45	A spatiotemporal approach to extract the 3D trajectory of the baseball from a single view video sequence. , 0, , .		10
46	Finding repetitive patterns in 3D human motion captured data. , 2008, , .		9
47	An intelligent mobile-based automatic diagnostic system to identify retinal diseases using mathematical morphological operations. , 2014, , .		9
48	Dataâ€Driven Crowd Motion Control With Multiâ€Touch Gestures. Computer Graphics Forum, 2018, 37, 382-394.	1.8	9
49	Resolving occlusion for 3D object manipulation with hands in mixed reality. , 2018, , .		9
50	A new method to evaluate the dynamic air gap thickness and garment sliding of virtual clothes during walking. Textile Reseach Journal, 2019, 89, 4148-4161.	1.1	9
51	Curvature-based sparse rule base generation for fuzzy rule interpolation. Journal of Intelligent and Fuzzy Systems, 2019, 36, 4201-4214.	0.8	8
52	Sparse metric-based mesh saliency. Neurocomputing, 2020, 400, 11-23.	3.5	8
53	Usability of corrected Kinect measurement for ergonomic evaluation in constrained environment. International Journal of Human Factors Modelling and Simulation, 2017, 5, 338.	0.1	7
54	A Privacy-Preserving Efficient Location-Sharing Scheme for Mobile Online Social Network Applications. IEEE Access, 2020, 8, 221330-221351.	2.6	7

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55	Makeup Style Transfer on Low-quality Images with Weighted Multi-scale Attention. , 2021, , .		7
56	High quality compatible triangulations for 2D shape morphing. , 2015, , .		6
57	Manifold Regularized Experimental Design for Active Learning. IEEE Transactions on Image Processing, 2017, 26, 969-981.	6.0	6
58	A Dual-Stream Recurrent Neural Network for Student Feedback Prediction using Kinect. , 2018, , .		6
59	High-quality compatible triangulations and their application in interactive animation. Computers and Graphics, 2018, 76, 60-72.	1.4	6
60	Illumination-Based Data Augmentation for Robust Background Subtraction. , 2019, , .		6
61	Interpreting Deep Learning based Cerebral Palsy Prediction with Channel Attention. , 2021, , .		6
62	Fast Accelerometer-Based Motion Recognition with a Dual Buffer Framework. The International Journal of Virtual Reality, 2019, 10, 17-24.	2.2	6
63	RobIn: A robust interpretable deep network for schizophrenia diagnosis. Expert Systems With Applications, 2022, 201, 117158.	4.4	6
64	Formation control for UAVs using a Flux Guided approach. Expert Systems With Applications, 2022, 205, 117665.	4.4	6
65	Angular momentum guided motion concatenation. Computer Animation and Virtual Worlds, 2009, 20, 385-394.	0.7	5
66	Unifying Person and Vehicle Re-Identification. IEEE Access, 2020, 8, 115673-115684.	2.6	5
67	High-speed multi-person pose estimation with deep feature transfer. Computer Vision and Image Understanding, 2020, 197-198, 103010.	3.0	5
68	A Unified Deep Metric Representation for Mesh Saliency Detection and Non-Rigid Shape Matching. IEEE Transactions on Multimedia, 2020, 22, 2278-2292.	5.2	5
69	PyTorch-based implementation of label-aware graph representation for multi-class trajectory prediction. Software Impacts, 2022, 11, 100201.	0.8	5
70	360 Depth Estimation in the Wild - the Depth360 Dataset and the SegFuse Network. , 2022, , .		5
71	Unsupervised abnormal behaviour detection with overhead crowd video. , 2017, , .		4
72	Synthesizing Expressive Facial and Speech Animation by Text-to-IPA Translation with Emotion Control. , 2018, , .		4

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73	A generic framework for editing and synthesizing multimodal data with relative emotion strength. Computer Animation and Virtual Worlds, 2019, 30, e1871.	0.7	4
74	Resolving handâ€•object occlusion for mixed reality with joint deep learning and model optimization. Computer Animation and Virtual Worlds, 2020, 31, e1956.	0.7	4
75	Editorial: Special Issue on Machine Vision with Deep Learning. International Journal of Computer Vision, 2020, 128, 771-772.	10.9	4
76	Facial reshaping operator for controllable face beautification. Expert Systems With Applications, 2021, 167, 114067.	4.4	4
77	Two-stage human verification using HandCAPTCHA and anti-spoofed finger biometrics with feature selection. Expert Systems With Applications, 2021, 171, 114583.	4.4	4
78	A Two-Stream Recurrent Network for Skeleton-based Human Interaction Recognition. , 2021, , .		4
79	A HYBRID METAHEURISTIC NAVIGATION ALGORITHM FOR ROBOT PATH ROLLING PLANNING IN AN UNKNOWN ENVIRONMENT. Mechatronic Systems and Control, 2019, 47, .	0.2	4
80	Triplet Loss with Channel Attention for Person Re-identification. Journal of WSCG, 2019, 27, .	0.6	4
81	Human motion variation synthesis with multivariate Gaussian processes. Computer Animation and Virtual Worlds, 2014, 25, 301-309.	0.7	3
82	Temporal clustering of motion capture data with optimal partitioning. , 2016, , .		3
83	Automatic dance generation system considering sign language information. , 2016, , .		3
84	SkillVis. , 2016, , .		3
85	Biofeedback assessment for older people with balance impairment using a low-cost balance board. , 2017, , .		3
86	A motion classification approach to fall detection. , 2017, , .		3
87	CCESK: A Chinese Character Educational System Based on Kinect. IEEE Transactions on Learning Technologies, 2018, 11, 342-347.	2.2	3
88	Image editing-based data augmentation for illumination-insensitive background subtraction. Journal of Enterprise Information Management, 2023, 36, 818-838.	4.4	3
89	Spoofing detection on hand images using quality assessment. Multimedia Tools and Applications, 2021, 80, 28603-28626.	2.6	3
90	Physically-Based Character Control in Low Dimensional Space. Lecture Notes in Computer Science, 2010, , 23-34.	1.0	3

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91	STGAE: Spatial-Temporal Graph Auto-Encoder for Hand Motion Denoising. , 2021, , .		3
92	Arbitrary view action recognition via transfer dictionary learning on synthetic training data. , 2016, , .		2
93	Stable Hand Pose Estimation under Tremor via Graph Neural Network. , 2021, , .		2
94	DanceDJ: A 3D Dance Animation Authoring System for Live Performance. Lecture Notes in Computer Science, 2018, , 653-670.	1.0	2
95	Automatic Sign Dance Synthesis from Gesture-based Sign Language. , 2019, , .		2
96	Natural preparation behavior synthesis. Computer Animation and Virtual Worlds, 2014, 25, 531-542.	0.7	1
97	NETIVAR: NETwork Information Visualization based on Augmented Reality. , 2018, , .		1
98	Identifying Abnormal Gait in Older People during Multiple-Tasks Assessment with Audio-Visual Cues. , 2018, , .		1
99	Cumuliform cloud formation control using parameter-predicting convolutional neural network. Graphical Models, 2020, 111, 101083.	1.1	1
100	Prior-less 3D Human Shape Reconstruction with an Earth Moverâ€™s Distance Informed CNN. , 2019, , .		1
101	3D Car Shape Reconstruction from a Single Sketch Image. , 2019, , .		1
102	Multiâ€task deep learning with optical flow features for selfâ€driving cars. IET Intelligent Transport Systems, 2020, 14, 1845-1854.	1.7	1
103	Foreground-aware Dense Depth Estimation for 360 Images. Journal of WSCG, 2020, 28, 79-88.	0.6	1
104	An interactive human morphing system with self-occlusion enhancement. , 2016, , .		0
105	Motion analysis of work conditions using commercial depth cameras in real industrial conditions. , 2019, , 673-682.		0
106	DSPP: Deep Shape and Pose Priors of Humans. , 2019, , .		0
107	Simulating Interactions of Characters. Lecture Notes in Computer Science, 2008, , 94-103.	1.0	0
108	Depth Sensor-Based Facial and Body Animation Control. , 2016, , 1-16.		0

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109	Usability of Corrected Kinect Measurement for Ergonomic Evaluation in Constrained Environment. International Journal of Human Factors Modelling and Simulation, 2017, 5, 1.	0.1	0
110	Depth Sensor-Based Facial and Body Animation Control. , 2018, , 1943-1958.		0
111	An interactive motion analysis framework for diagnosing and rectifying potential injuries caused through resistance training. , 2019, , .		0