

Don Kimber

Researcher, Programmer & Imagineer

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<https://worldviews.org/donkimber.html>

SUMMARY

I have over 40 years of experience in software engineering, and over 30 years as a researcher and inventor. I've built prototypes and products and published in such areas as networking, query languages, machine learning, statistical modeling, information theory, speech recognition and processing, multimedia meeting recording, acoustic based localization, 360 panoramic video, virtual and mixed reality, telepresence, and advanced HCI interfaces. I'm coauthor on 80 peer reviewed papers, and co-inventor of over 40 patents. But what I am most proud of in my career is intellectual curiosity, imagination and creativity. I seek to be part of, and to help foster, communities based on those qualities, that bring science and technology to bear in creating a more beautiful world.

TECHNICAL SKILLS

- Proficient in languages: JavaScript, Java, Python, C++, C, C#, Objective-C, Mathematica, ruby, Lisp, assembler (Macro-10, Macro-11, x86), bliss
- Platforms & Tools: Windows, android, unix/linux, arduino, node.js, jquery, flask, django, ObservableHQ, google earth API, CesiumJS, VRML browsers, OpenSceneGraph, three.js, WebSockets, socket.io, OSC, MQTT, Unity3D, SketchUp, VRML, git, svn, numpy, scikit, matlab, MySQL, MongoDB, firebase, Kinect, OpenCV, OpenVSLAM, OpenPose, ARToolKit, AWS, Heroku, digitalocean
- Experience with software and platform architecture and design, have built numerous interpreters, 3D/XR platforms, scripting environments used for system and application integration in many projects
- Supervised many undergraduate, masters and Ph.D. level interns from around the world, producing numerous patents and publications.

PROFESSIONAL EXPERIENCE

FX Palo Alto Laboratory - *Principal Scientist*

Jun 2005 - June 2020 - *Principal Scientist*

- Research Topics: Mixed, augmented and virtual reality, mirror worlds, activity tracking and modeling, educational workspaces, responsive video interfaces, photogrammetry, structure from motion, focus+context video for remote robotic control, immersive and contextual 360 video playback devices, acoustic & sensor fusion based localization
- Designed and built prototype systems for each of the areas above, used for concept demonstration, research papers, user studies and patent embodiments
- Frequently reviewed patents, served on patent evaluation panel

December 1999 - June 2005 - *Contractor / Consultant*

- Research topics: 360 Video, Spatially indexed video (360 virtual tours), automatic meeting capture.
- Designed and built: Multi camera 360 video, multiresolution active camera video capture and playback systems

Xerox PARC - *Member Research Staff II*

January 1, 1995 - December 1999 - *MRS II*

- Research topics: Multimedia architecture for meeting and presentation capture, intelligence as general system process, organizational intelligence and creativity, speech and video indexing, probabilistic models for information retrieval.
- Designed and built: TimeStreams multimedia capture platform, web based audio-video access to recorded talks and PARC Forums.

June, 1988 - December 1994 - *Research Intern*

- Research Topics: Applications of Riemannian geometry to non-parametric modeling of dynamical systems, continuous state space modeling for phonetic recognition, supervised & unsupervised speaker segmentation, speech based information retrieval.
- Designed and built: Stochastic modeling system and toolkit, audio manager with speech recognition, word spotting and speaker segmentation capabilities, audio browser tool with variable-speed playback, speaker timeline display and general indexing capability.
- Worked on design and implementation of tracking and documentation database for integrated circuit fabrication using hypertext and LISP.

University of California, Santa Cruz - *Teaching Assistant, Research Assistant*

September 1985 - June 1988

- Research on constraint networks, Molecular Automata (method for inference of stochastic finite state machines), and constrained sequence error control codes.
- Teaching assistant for classes in Algorithms, Objective C, Probability, Cybernetics, Signal Processing

Daisy Systems, Inc., Network Group - *Systems Analyst*

March 1985 - September 1985

- Implemented local network utilities and Ethernet device driver.

Excelan, Inc. - *Member Technical Staff*

May 1983 - February 1985

- Worked on development of Ethernet analyzer and TCP/IP network utilities.

Timeshare Inc. - *Systems Programmer II*

December 1980 - May 1983

- Design and implementation of relational database report generation query language.

Stevens Institute of Technology. - *Systems and Scientific Programmer*

January 1977 - June 1980

- Responsible for X-ray diffractometer automation. Developed PDP-11 floppy disk operating system, device drivers, LISP interpreter, and data collection software.

COMMUNITY AND NONPROFIT

WorldViews, LLC - *Co-Founder, Chief Imagineer*

December 2015 - present

- Design and implemented 360 panoramic video touring system, participated in community events, provided live remote virtual tours for disabled participants

Kinetech Arts - *Board of directors, Secretary*

June 2017 - present

- Kinetech Arts is a 501c3 non profit educational community organization in the area of Arts & Technology

EDUCATION

Stanford University, Stanford, California

Ph.D., Electrical Engineering, 1989 - 1995

Advisor Tom Cover, Thesis topic: Nonparametric geometric modeling of dynamical systems, with applications to speech recognition

University of California, Santa Cruz, California

M.S., Computer and Information Science, 1985 - 1988

Advisor Robert Levinson, Thesis topic: Molecular automata (a method for learning models of stochastic sequences using statistical mechanics and simulated annealing)

Stevens Institute of Technology, Hoboken, New Jersey

B.E. Electrical Engineering with Honors, June 1976 - 1980

PUBLICATIONS

Reactive Video: Adaptive Video Playback Based on User Motion for Supporting Physical Activity

Christopher Clarke, Doga Cavdir, Patrick Chiu, Laurent Denoue, Don Kimber
UIST '20: Proceedings of the 33rd Annual ACM Symposium on User Interface Software and Technology, October 2020 Pages 196–208

InFo: Indoor localization using Fusion of Visual Information from Static and Dynamic Cameras

Chelhwon Kim, Chidansh Bhatt, Mitesh Patel, Don Kimber, Yulius Tjahjadi
Indoor Positioning and Indoor Navigation, 9/30/2019

Investigating the Relationship between Connection, Agency and Autonomy for Controlling a Robot Arm for Remote Social Physical Interaction

Ryuya Sato, Don Kimber, Yanxia Zhang
HCI International 2019

Use Your Head! Exploring Interaction Modalities for Hat Technologies

Christine Dierk, Scott Carter, Patrick Chiu, Tony Dunnigan, Don Kimber
DIS: Designing Interactive Systems, 6/23/2019

Depth Based Shadow Pointing Interface for Public Display

Jun Shingu, Patrick Chiu, Sven Kratz, Jim Vaughan, Don Kimber
UIST 2016 (Demo)

Look Where You're Going: Visual Interfaces for Robot Teleoperation

Jim Vaughan, Sven Kratz, Don Kimber
RO-MAN, 2016 (Best Paper)

WorldViews: Connecting the world through easy sharing of views

Don Kimber, Enock Glidden, Jennifer Marlow
International Workshop on Interactive Content Consumption, 6/22/2016

Polly Wanna Show You: Examining Viewpoint-Conveyance Techniques for a Shoulder-Worn Telepresence System [Industrial Case Study]

Sven Kratz, Daniel Avrahami, Don Kimber, Jim Vaughan, Patrick Proppe
MobileHCI, 8/24/2015

'Good Enough' is not Good Enough: Challenges of Social Interaction in Video-Mediated Telepresence

Jennifer Marlow, Daniel Avrahami, Jacob Biehl, Scott Carter, Matthew Cooper, Don Kimber, Sven Kratz
"Everyday Telepresence" workshop at CHI 2015

Evaluating Stereoscopic Video with Head Tracking for Immersive Teleoperation of Mobile Telepresence Robots

Sven Kratz, Jim Vaughan, Don Kimber
Human-Robot Interaction (HRI) 2015

Polly: "Being There" through the Parrot and a Guide

Weiqing Su, Sven Kratz, Don Kimber
MobileHCI 2014 (Industrial Case Study)

Polly: Telepresence from a Guide's Shoulder

Don Kimber, Patrick Proppe, Sven Kratz, Jim Vaughan, Bee-Yian Liew
Assistive Computer Vision and Robotics Workshop of ECCV, 9/12/2014

Mirror Worlds for Indoor Navigation and Awareness

Don Kimber, Jacob Biehl, Matthew Cooper, David Lee, Jim Vaughan, Jun Shingu
IPIN2012

Indoor localization using controlled ambient sounds

Ish Rishabh, Don Kimber, John Adcock
IPIN2012

Through the Looking-Glass: Mirror Worlds for Augmented Awareness & Capability

Don Kimber, Jun Shingu, Jim Vaughan, Dave Arendash, David Lee, Maribeth Back, Shingo Uchihashi
ACM MM 2012

Augmented Perception through Mirror Worlds

Don Kimber, Jim Vaughan, Eleanor Rieffel
Augmented Human 2011

The Virtual Chocolate Factory: Mixed Reality Industrial Collaboration and Control

Maribeth Back, Don Kimber, Eleanor Rieffel, Tony Dunnigan, Bee-Yian Liew, Sagar Gattepally, Jonathan Foote, Jun Shingu, Jim Vaughan
ACM Multimedia 2010 - Industrial Exhibits

Camera Pose Navigation using Augmented Reality

Jun Shingu, Eleanor Rieffel, Don Kimber, Jim Vaughan, Pernilla Qvarfordt, Kathleen Tuite
ISMAR 2010

The Virtual Chocolate Factory: Building a real world mixed-reality system for industrial collaboration and control

Maribeth Back, Tony Dunnigan, Sagar Gattepally, Don Kimber, Bee-Yian Liew, Eleanor Rieffel, Jun Shingu, Jim Vaughan
ICME 2010, Singapore, July 19-23 2010

Geometric reconstruction from point-normal data

Eleanor Rieffel, Don Kimber, Jim Vaughan
SIAM MI'09 monograph. Related talks: SIAM GPM'09, SIAM MI'09, and BAMA (Bay Area Mathematical Adventures), 05/01/2010

The Virtual Factory: Exploring 3D worlds as industrial collaboration and control environments

Maribeth Back, Tony Dunnigan, Sagar Gattepally, Don Kimber, Bee-Yian Liew, Eleanor Rieffel, Jun Shingu, Jim Vaughan
IEEE Virtual Reality 2010 conference

Marking up a World: Physical Markup for Virtual Content Creation (Video)

Eleanor Rieffel, Sagar Gattepally, Don Kimber, Jun Shingu, Jim Vaughan, John Doherty
ACM Multimedia, 10/21/2009

Interactive Models from Images of a Static Scene

Eleanor Rieffel, Don Kimber, Jim Vaughan, Sagar Gattepally, Jun Shingu
Computer Graphics and Virtual Reality (CGVR '09)

High Accuracy and Language Independent Document Retrieval with a Fast Invariant Transform

Qiong Liu, Hironori Yano, Don Kimber, Chunyuan Liao, Lynn Wilcox
2009 IEEE International Conference on Multimedia and Expo (ICME)

Image-based Lighting Adjustment Method for Browsing Object Images

Jun Shingu, Shingo Uchihashi, Tetsuo Iyoda, Don Kimber, Eleanor Rieffel, Jim Vaughan
2009 IEEE International Conference on Multimedia and Expo (ICME)

Marking up a World: Visual Markup for Creating and Manipulating Virtual Models

Don Kimber, Eleanor Rieffel, Jun Shingu, Jim Vaughan
Immerscom 2009

Rethinking the Podium

Maribeth Back, Patrick Chiu, Surapong Lertsithichai, Don Kimber, John Boreczky, Qiong Liu, Jonathan Foote, Takashi Matsumoto
Chapter in "Interactive Artifacts and Furniture Supporting Collaborative Work and Learning", ed. P. Dillenbourg, J. Huang, and M. Cherubini. Published Nov. 28, 2008, Springer. Computer Supported Collaborative Learning Series Vol. 10.

Virtual Physics Circus (video)

Don Kimber, Eleanor Rieffel, Jim Vaughan, John Doherty
ACM Multimedia 2008

Context and Observation Driven Latent Variable Model for Human Pose Estimation

Abhinav Gupta, Trista Chen, Francine Chen, Don Kimber, Larry Davis
IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2008

Collaboration Support Using Environment Images and Videos

Qiong Liu, Don Kimber, Patrick Chiu
The 3rd International Conference on Collaborative Computing: Networking, Applications and Worksharing, 11/12/2007

DOTS: Support for Effective Video Surveillance

Andreas Girgensohn, Don Kimber, Jim Vaughan, Tao Yang, Frank Shipman, Thea Turner, Eleanor Rieffel, Lynn Wilcox, Francine Chen, Tony Dunnigan
Fuji Xerox Technical Report No. 17, pp. 83-100, 11/01/2007

Geometric Tools for Multi-camera Surveillance Systems

Eleanor Rieffel, Andreas Girgensohn, Don Kimber, Trista Chen, Qiong Liu
ICDSC 2007, pp. 132-139

DOTS: Support for Effective Video Surveillance

Andreas Girgensohn, Don Kimber, Jim Vaughan, Tao Yang, Frank Shipman, Thea Turner, Eleanor Rieffel, Lynn Wilcox, Francine Chen, Tony Dunnigan
ACM Multimedia 2007, pp. 423-432

Trailblazing: Video Playback Control by Direct Object Manipulation

Don Kimber, Tony Dunnigan, Andreas Girgensohn, Frank Shipman, Thea Turner, Tao Yang
ICME 2007, pp. 1015-1018

Robust People Detection and Tracking in a Multi-camera Indoor Visual Surveillance System

Tao Yang, Francine Chen, Don Kimber, Jim Vaughan
ICME 2007, pp. 675-678

Featured Wand for 3D Interaction

Feng Guo, Don Kimber, Eleanor Rieffel
ICME 2007

On Redirecting Documents with a Mobile Camera

Qiong Liu, Don Kimber, Patrick Chiu, Paul McEvoy, Hanning Zhou
Proceedings of IEEE Multimedia Signal Processing 2006

Unusual Event Detection via Multi-camera Video Mining

Hanning Zhou, Don Kimber

International Conference on Pattern Recognition. 08/20/2006

Framework for effective use of multiple displays

Qiong Liu, Don Kimber, Frank Zhao, Jeffrey Huang

Proceedings of SPIE International Symposium ITCOM 2005 on Multimedia Systems and Applications VIII, Boston, Massachusetts, USA, October 2005.

Region of Interest Extraction and Virtual Camera Control Based on Panoramic Video Capturing

Xinding Sun, Jonathan Foote, Don Kimber, B. Manjunath

IEEE Trans. Multimedia, Vol. 7 No. 5, pp. 981-990, 10/11/2005

The Convertible Podium: A rich media teaching tool for next-generation classrooms

Maribeth Back, Surapong Lertsithichai, Patrick Chiu, John Boreczky, Jonathan Foote, Don Kimber, Qiong Liu, Frank Zhao, Takashi Matsumoto

Paper presented at SIGGRAPH 2005, Los Angeles., 9/29/2005

The Convertible Podium: a rich media control station

Maribeth Back, Surapong Lertsithichai, Patrick Chiu, Jonathan Foote, John Boreczky, Qiong Liu, Don Kimber, Frank Zhao

Short presentation in UbiComp 2005 workshop in Tokyo, Japan.

Mediated Meeting Interaction for Teleconferencing

Kazumasa Murai, Don Kimber, Jonathan Foote, Qiong Liu, John Doherty

ICME 2005

An Online Video Composition System

Qiong Liu, Xiaojin Shi, Don Kimber, Frank Zhao, Frank Raab

IEEE International Conference on Multimedia & Expo July 6-8, 2005, Amsterdam

Reach-Through-the-Screen: A New Metaphor for Remote Collaboration

Jonathan Foote, Qiong Liu, Don Kimber, Patrick Chiu, Frank Zhao

Springer Lecture Notes in Computer Science - Advances in Multimedia Information Processing, Proc. PCM 2004 5th Pacific Rim Conference on Multimedia, Tokyo, Japan Aizawa, K., Nakamura, Y., Satoh, S. (Eds.), Vol. 3333, 2005, ISBN 3-540-23985-5, pp 73--80

Remote Interactive Graffiti

Jonathan Foote, Don Kimber, Kazutaka Hirata

Proc. ACM Multimedia 2004

An EPIC Enhanced Meeting Environment

Qiong Liu, Frank Zhao, John Doherty, Don Kimber

Proc. of ACM Multimedia 2004, October 10, 2004

A Tele-robot Assistant for Remote Environment Management

Chunyuan Liao, Qiong Liu, Don Kimber, Surapong Lertsithichai

Proceedings of 2004 IEEE International Conference on Multimedia and Expo (ICME 2004).

A Presentation Authoring Tool for Media Devices Distributed Environments

Hangjin Zhang, Qiong Liu, Surapong Lertsithichai, Chunyuan Liao, Don Kimber

Proceedings of 2004 IEEE International Conference on Multimedia and Expo (ICME 2004).

Immersive Conferencing Directions at FX Palo Alto Laboratory

Jonathan Foote, Qiong Liu, Don Kimber, Patrick Chiu

JOINT AMI/PASCAL/IM2/M4 Workshop on Multimodal Interaction and Related Machine Learning Algorithms, 6/22/2004

Shared Interactive Video for Teleconferencing

Chunyuan Liao, Qiong Liu, Don Kimber, Patrick Chiu, Jonathan Foote, Lynn Wilcox
Proc. ACM Multimedia 2003, pp. 546-554, 11/02/2003

Learning Automatic Video Capture from Human's Camera Operations

Qiong Liu, Don Kimber
Proc. IEEE Intl. Conf. on Image Processing, 09/14/2003

Manipulating and annotating slides in a multi-display environment

Patrick Chiu, Qiong Liu, John Boreczky, Jonathan Foote, Tohru Fuse, Don Kimber, Surapong Lertsithichai, Chunyuan Liao
Proceedings of INTERACT '03, pp. 583-590., 9/01/2003

Multichannel Video/Audio Acquisition for Immersive Conferencing

Qiong Liu, Don Kimber, Jonathan Foote, Chunyuan Liao
2003 International Conference on Multimedia and Expo, 7/06/2003

FLYSPEC: A Multi-User Video Camera System with Hybrid Human and Automatic Control

Qiong Liu, Don Kimber, Jonathan Foote, Lynn Wilcox, John Boreczky
ACM Multimedia 2002

Managing a Camera System to Serve Different Video Requests

Qiong Liu, Don Kimber, Lynn Wilcox, Matthew Cooper, Jonathan Foote, John Boreczky
IEEE International Conference on Multimedia and Expo 2002

Detecting Path Intersections in Panoramic Video

Xinding Sun, Don Kimber, Jonathan Foote, B. Manjunath
IEEE International Conference on Multimedia and Expo 2002

Capturing and Presenting Shared Multi-Resolution Video

Don Kimber, Qiong Liu, Jonathan Foote, Lynn Wilcox
SPIE ITCOM 2002

Panoramic Video Capturing and Compressed Domain Virtual Camera Control.

Xinding Sun, Jonathan Foote, Don Kimber, B. Manjunath
Proc. ACM Multimedia 2001, Ottawa, CA, Oct. 2001.

FlyAbout:Spatially Indexed Panoramic Video.

Don Kimber, Jonathan Foote
Proc. ACM Multimedia 2001, Ottawa,CA, Oct. 2001.

Recording the Region of Interest from FlyCam Panoramic Video

Xinding Sun, Jonathan Foote, Don Kimber, B. Manjunath
Proc. International Conference on Image Processing, Thessaloniki, Greece, September 2001.

LiteMinutes: An Internet-Based System for Multimedia Meeting Minutes

Patrick Chiu, John Boreczky, Andreas Girgensohn, Don Kimber
In Proceedings of Tenth World Wide Web Conference (2001), Hong Kong, May 1-5, 2001, pp. 140-149., Available at www10.org, 05/01/2001

Enhancing Distance Learning with Panoramic Video

Jonathan Foote, Don Kimber
In Proceedings of the Thirty-fourth Annual Hawaii International Conference on System Sciences (HICSS), Big Island, Hawaii. January 7-12, 2001.

FlyCam: Practical Panoramic Video.

Jonathan Foote, Don Kimber

In Proceedings of IEEE International Conference on Multimedia and Expo, vol. III, pp. 1419-1422, 7/30/2000

Metadata for Mixed Media Access.

F Chen, Marti Hearst, Don Kimber, J Kupiec, J Pedersen, Lynn Wilcox

In Managing Multimedia Data: Using Metadata to Integrate and Apply Digital Data. A. Sheth and W. Klas (eds.), McGraw Hill, 1997

Acoustic Segmentation for Audio Browsers

Don Kimber, Lynn Wilcox

Proceedings Interface Conference (Sydney, Australia, July 1996).

Information, The Universe and Everything: Aspects of an Information Theoretic Metaphysics

Don Kimber

Proceedings of SCI-98.

Acoustic Segmentation for Audio Browsers

Don Kimber & Lynn Wilcox

Computing Science and Statistics, 28, 295-304., 1997

Analysis of Gesture and Action in Technical Talks for Video Indexing

S. Ju, M. Black, S. Minneman, D. Kimber

IEEE Conf. On Computer Vision and Pattern Recognition, CVPR-97, Puerto Rico, June 1997; also in AAAI Spring Symposium'97 on Intelligent Integration and Use of Text, Image, Video and Audio Corpora, March 1997

"I'll Get That Off the Audio": A Case Study of Salvaging Multimedia Meeting Records

T. Moran, L. Palen, S. Harrison, P. Chiu, D. Kimber, S. Minneman, W. van Melle, P. Zellweger

Proceedings of CHI-97, ACM

Metadata for Mixed Media Access

F. Chen, M. Hearst, D. Kimber, J. Kupiec, J. Pedersen, & L. Wilcox

Chapter in Managing Multimedia Data Using Metadata to Integrate and Apply Digital Data, A. Sheth and W. Klas (eds.), McGraw Hill, 1997

Speaker Segmentation for Browsing Recorded Audio

Don Kimber, Lynn Wilcox, Francine Chen & Thomas Moran

Proceedings of CHI-95, ACM

On-Line Learning of Smooth Functions of a Single Variable

Don Kimber & Phil Long

Journal of Theoretical Computer Science, 1995

Audio Indexing Using Speaker Identification

L. Wilcox, D. Kimber & F. Chen

SPIE-94

Speech-Based Retrieval Using Semantic Co-Occurrence Filtering

J. Kupiec, D. Kimber & V. Balasubramanian

ARPA HLT-94

Segmentation of Speech Using Speaker Identification

L Wilcox, F. Chen, D. Kimber & V. Balasubramanian

ICASSP-94

Situated State Hidden Markov Models

D. Kimber & M.A. Bush

ICASSP-93

The Learning Complexity of Smooth Functions of a Single Variable

D. Kimber & P. Long

COLT-92

Speaker-Independent Vowel Classification using Hidden Markov Models and LVQ2

D. Kimber, M.A. Bush & G. N. Tajchman

ICASSP-90

THESES

Geometric Methods for Non-parametric Modeling of Dynamical Systems

Ph. D. thesis, Stanford University, 1995

Molecular Automata

M.S. Thesis, University of California, Santa Cruz, 1988

REFERENCES

Lynn Wilcox, Jim Vaughan, Larry Rowe, Stephan Crawford, Laurent Denoue, Chris Clarke, Qiong Liu, Steve Omohundro, Weidong Yang, Derrick Kikuchi

PATENTS

Filed while at FXPAL, pending:

Earballs: Transmodal Translation of Feature Vectors to Audio for Assistive Devices

Andrew Port, Doga Cavdir, Chelhwon Kim, Mitesh Patel, Don Kimber, Qiong Liu

Provisional Application Filed, 2020

A web-based remote assistance system with context & content-aware 3D hand gesture visualization

Chelhwon Kim, Patrick Chiu, Yulius Tjahjadi, Don Kimber, Qiong Liu

Application Filed 2019

Reactive Video

Don Kimber, Laurent Denoue, Maribeth Back, Patrick Chiu, Chelhwon Kim, Yanxia Zhang

Application Filed 2019

Indoor localization using Fusion of Visual Information from Static and Dynamic Camera Images

Chelhwon Kim, Chidansh Bhatt, Mitesh Patel, Don Kimber

Application Filed 2018

Smart hat device for interacting with remote devices and displays

Christine Dierk, Scott Carter, Patrick Chiu, Tony Dunnigan, Chelhwon Kim, Don Kimber, Nami

Tokunaga, Hajime Ueno

Application Filed 2018

Issued while at FXPAL:

A method for steering speaker array and microphone array with encoded light rays

Qiong Liu, Don Kimber, Shang Ma

U.S. Patent 10,516,939 2018

Panoramic Portals for Connecting Remote Spaces

Don Kimber, Jim Vaughan, Tony Dunnigan, Pernilla Qvarfordt

U.S. Patent 10,356,319 2018

System and method for printing on large surface with portable printing devices

Qiong Liu, Shang Ma, Don Kimber, Patrick Chiu, Sven Kratz

U.S. Patent 9,849,693 2015

Focus+Context views for telepresence and robotic teleoperation

Ryota Mizutani, Don Kimber, Sven Kratz, Jim Vaughan

U.S. Patent 10,012,982 2015

“Look at That”: Sharing views in collaborative viewing tasks

Don Kimber, Sven Kratz, Patrick Proppe, Maribeth Back, Bee-Yian Liew, Tony Dunnigan

U.S. Patent 10,250,813 2014

Method for creating 3D models by stitching multiple unordered partial 3D models

Don Kimber, Jim Vaughan, David Lee

U.S. Patent 9,129,435 2014

Localization Using Modulated Ambient Sounds

Don Kimber, John Adcock

U.S. Patent 9,146,301 2012

System and method for detecting and acting on multiple people crowding a small display for display sharing

Don Kimber, Pernilla Qvarfordt

U.S. Patent 9,131,147 2011

AR Navigation for Repeat Photography and Difference Extraction

Don Kimber, Eleanor Rieffel, Jim Vaughan, Jun Shingu, Kathleen Tuite

U.S. Patent 8,803,992 2010

Marking up a World: Visual Markup for Creating and Manipulating Virtual Models

Don Kimber, Eleanor Rieffel, Jim Vaughan, Jun Shingu, Chong Chen

U.S. Patent 8,411,086 2008

Observation-Driven Probability-Based Latent Models for Human Pose Estimation

Don Kimber, Francine Chen, Trista Chen, Abhinav Gupta

U.S. Patent 7,925,081 2007

An HMM-based Model for Camera Handoff

Francine Chen, Tao Yang, Don Kimber

U.S. Patent 8,432,449 2007

Fast and Reliable Feature Level Foreground Segmentation for Intelligent Visual Surveillance

Don Kimber, Francine Chen, Tao Yang

U.S. Patent 7,916,944 2007

Featured wands for camera calibration and as a gesture based 3D interface device

Don Kimber, Eleanor Rieffel, Kazumasa Murai, Steve Omohundro, Feng Guo

U.S. Patent 7,775,439 2006

Reach through capture: a method and system for interacting with objects via a camera

Qiong Liu, Don Kimber, Patrick Chiu, Hanning Zhou, Jack Yang, Laurent Denoue

U.S. Patent 7,830,417 2006

Unusual Event Detection via Collaborative Video Mining

Don Kimber, Hanning Zhou

U.S. Patent 8,009,193 2005

An Immersive User Interface for Analyzing and Monitoring Videos from Multiple Cameras

Matthew Cooper, Don Kimber, Lynn Wilcox, Qiong Liu, Hanning Zhou

U.S. Patent 7,787,011 2005

System and Method for User Monitoring Interface of 3D Videos

Matthew Cooper, Don Kimber, Lynn Wilcox, Qiong Liu, Hanning Zhou

U.S. Patent 7,944,454 2005

Methods and Interfaces for Visualizing Activity across Video Frames in an Action Keyframe

Andreas Girgensohn, Don Kimber, Lynn Wilcox, Frank Shipman

U.S. Patent 7,623,677 2005

A Method and System for Analyzing Fixed-Camera Video via the Selection, Visualization, and Interaction with Storyboard Keyframes

Andreas Girgensohn, Don Kimber, Lynn Wilcox, Frank Shipman

U.S. Patent 8,089,563 2005

Mediated Meeting Interaction for Teleconferencing

Jonathan Foote, Don Kimber, Qiong Liu, John Doherty, Kazumasa Murai

U.S. Patent 7,688,344 2004

Methods For Presentation Authoring In A Media Device Distributed Environment

Patrick Chiu, Don Kimber, Qiong Liu, Chunyuan Liao, Surapong Lertsithichai

U.S. Patent 7,434,153 2003

ADO: An Audio Device Organizer

Jonathan Foote, Don Kimber, Qiong Liu, John Adcock, Chunyuan Liao

U.S. Patent 8,126,155 2002

VETCH: a Video Enabled Tele-presence Control Host

Qiong Liu, Jonathan Foote, Don Kimber, Patrick Chiu, Lynn Wilcox, Chunyuan Liao

U.S. Patent 7,995,090 2002

Capturing and Presenting Shared Multi-Resolution Video

Jonathan Foote, Don Kimber, Lynn Wilcox, Qiong Liu, Hai Tao

U.S. Patent 6,839,067 2002

Methods for intersection detection in panoramic video

Jonathan Foote, Don Kimber, Xinding Sun, John Adcock

U.S. Patent 7,289,138 2001

Methods for Annotating Remote Objects

Jonathan Foote, Don Kimber

U.S. Patent 7,333,135 2001

Video Production Through Collaborative Control of FlySPECS

John Boreczky, Patrick Chiu, Jonathan Foote, Don Kimber, Lynn Wilcox, Qiong Liu, Shingo Uchihashi

U.S. Patent 6,839,067 2001

Methods for multisensor color normalization

Jonathan Foote, Don Kimber

U.S. Patent 7,260,258 2001

FlyAbout: Spatially Indexed Panoramic Video

Jonathan Foote, Don Kimber

U.S. Patent 7,096,428 2001

LiteMinutes: an internet-based system for multimedia meeting

Patrick Chiu, Don Kimber, John Boreczky, Andreas Girgensohn

U.S. Patent 7,260,771 1999

System for person location and gesture tracking

Jonathan Foote, Don Kimber

U.S. Patent 6,775,014 1999

Filed while at Xerox PARC:

System for the Capture and Replay of Temporal Data Representing Collaborative Activities

T. Moran, S. Minneman, S. Harrison, D. Kimber, W. van Melle, P. Zellweger, G. Kurtenbach, L. Wilcox, S. Bly, W. Janssen, C. Hebel

U.S. Patent No. 5,717,879 1998

Computer Controlled Display System Using a Timeline to Control Playback of Temporal Data Representing Collaborative Activities

T. Moran, S. Minneman, D. Kimber, P. Zellweger, G. Kurtenbach, L. Wilcox

U.S. Patent No. 5,717,869 1998

Unsupervised Speaker Clustering for Automatic Speaker Indexing of Recorded Audio Data

Lynn Wilcox, Don Kimber

U.S. Patent No. 5,659,662 1997

Method of Speaker Clustering for Unknown Speakers in Conversational Audio Data

Don Kimber, Lynn Wilcox, Francine Chen

U.S. Patent No. 5,598,507 1997

Segmentation of Audio Data for Indexing of Conversational Speech for Real-time or Post-processing Applications

V. Balasubramanian, F. Chen, P. Chou, D. Kimber, A. Poon, K. Weber & L. Wilcox

U.S. Patent No. 5,655,058 1997

Real-time Audio Recording System for Automatic Speaker Indexing

V. Balasubramanian, F. Chen, P. Chou, D. Kimber, A. Poon, K. Weber & L. Wilcox

U.S. Patent No. 5,606,643 1994