

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Chris Pershing et al.
U.S. Patent No.: 9,135,737 Attorney Docket No.: 53317-0003IP1
Issue Date: September 15, 2015
Appl. Serial No.: 14/484,726
Filing Date: August 1, 2014
Title: CONCURRENT DISPLAY SYSTEMS AND METHODS FOR
AERIAL ROOF ESTIMATION

DECLARATION OF JACOB ROBERT MUNFORD

I, Jacob Robert Munford, declare that:

1. I am over the age of 18, have personal knowledge of the facts set forth herein, and am competent to testify to the same.

2. I earned a Master of Library and Information Science (MLIS) from the University of Wisconsin-Milwaukee in 2009. I have over ten years of experience in the library/information science field. Beginning in 2004, I have served in various positions in the public library sector including Assistant Librarian, Youth Services Librarian and Library Director. I have attached my Curriculum Vitae as Appendix CV.

3. During my career in the library profession, I have been responsible for materials acquisition for multiple libraries. In that position, I have cataloged, purchased and processed incoming library works. That includes purchasing materials directly from vendors, recording publishing data from the material in question, creating detailed material records for library catalogs and physically

preparing that material for circulation. In addition to my experience in acquisitions, I was also responsible for analyzing large collections of library materials, tailoring library records for optimal catalog search performance and creating lending agreements between libraries during my time as a Library Director.

4. I have been retained on behalf of the Petitioner to provide assistance in the above-illustrated matter in establishing the authenticity and public availability of the documents discussed in this declaration. I am being compensated for my services in this matter at the rate of \$100.00 per hour plus reasonable expenses. My statements are objective, and my compensation does not depend on the outcome of this matter.

5. I am fully familiar with the catalog record creation process in the library sector. In preparing a material for public availability, a library catalog record describing that material would be created. These records are typically written in Machine Readable Catalog (herein referred to as “MARC”) code and contain information such as a physical description of the material, metadata from the material’s publisher, and date of library acquisition. In particular, the 008 field of the MARC record is reserved for denoting the date of creation of the library record itself. As this typically occurs during the process of preparing materials for public access, it is my experience that an item’s MARC record indicates the date of an item’s public availability.

6. Typically, in creating a MARC record, a librarian would gather various bits of metadata such as book title, publisher and subject headings among others and assign each value to a relevant numerical field. For example, a book's physical description is tracked in field 300 while title/attribution is tracked in field 245. The 008 field of the MARC record is reserved for denoting the creation of the library record itself. As this is the only date reflecting the inclusion of said materials within the library's collection, it is my experience that an item's 008 field accurately indicates the date of an item's public availability.

7. I have reviewed Exhibit 1005 "The RADIUS Common Development Environment" by Lynn H. Quam and Aaron J. Heller as published in *RADIUS: Image Understanding for Imagery Intelligence*.

8. Attached hereto as Appendix QUAM01 is a true and correct copy of the MARC record for *RADIUS: Image Understanding for Imagery Intelligence* as held by the Rochester Institute of Technology library. I secured this record myself from the library's public catalog. The MARC record contained within Appendix QUAM01 accurately describes the title, author, publisher, and ISBN number of *RADIUS: Image Understanding for Imagery Intelligence*. In comparing Exhibit 1005 to Appendix QUAM01, it is my determination that Exhibit 1005 is a true and correct copy of "The RADIUS Common Development Environment" as published in *RADIUS: Image Understanding for Imagery Intelligence*.

9. The 008 field of the MARC record in Appendix QUAM01 indicates the date of record creation. The 008 field of Appendix QUAM01 indicates the Rochester Institute of Technology library first acquired this publication as of June 24, 1998. Considering this information, it is my determination that *RADIUS: Image Understanding for Imagery Intelligence* and therefore “The RADIUS Common Development Environment” was made available to the public shortly after its initial acquisition as of June 24, 1998.

10. I have reviewed Exhibit 1004, “The Site-Model Construction Component of the RADIUS Testbed System” by A. Heller, P. Fua, C. Connolly and J. Sargent as published in *Proceedings of the DARPA Image Understanding Workshop 1997*.

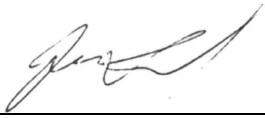
11. Attached hereto as Appendix HELLER01 is a true and correct copy of the MARC record for *Proceedings of the DARPA Image Understanding Workshop 1997* as held by the Massachusetts Institute of Technology library. I secured this record myself from the library’s public catalog. The MARC record contained within Appendix HELLER01 accurately describes the title, author, publisher, and ISBN number of *Proceedings of the DARPA Image Understanding Workshop 1997*. In comparing Exhibit 1004 to Appendix HELLER01, it is my determination that Exhibit 1004 is a true and correct copy of “The Site-Model Construction

Component of the RADIUS Testbed System” as published in *Proceedings of the DARPA Image Understanding Workshop 1997*.

12. The 008 field of the MARC record in Appendix HELLER01 indicates the date of record creation. The 008 field of Appendix HELLER01 indicates the Massachusetts Institute of Technology library first acquired these proceedings as of September 22, 1998. Considering this information, it is my determination that *Proceedings of the DARPA Image Understanding Workshop 1997* and therefore “The Site-Model Construction Component of the RADIUS Testbed System” was made available to the public shortly after its initial acquisition in September 22, 1998.

I declare under penalty of perjury that the foregoing is true and correct. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: 3/14/2022



Jacob Robert Munford

APPENDIX QUAM01

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LEADER 00000nam 2200000Ia 4500
001 39346252
008 980624s1997 caua 001 0 eng d
020 1558604502
040 RVE|cRVE
049 RVEU
090 TA1634|b.R33 1997
245 00 RADIUS :|bimage understanding for imagery intelligence /
|cedited by Oscar Firschein, Thomas M. Strat
246 30 Image understanding for imagery intelligence
260 San Francisco CA :|bMorgan Kaufmann Publishers,|c[1997?]
300 xvi, 503 p. :|bill. (some col.) ;|c28 cm
500 "This document contains technical reports prepared for the
Defense Advanced Research Projects Agency (DARPA) Image
Understanding Program."
500 "Approved for public release distribution unlimited."
650 0 RADIUS (Computer program)
650 0 Computer vision
650 0 Remote sensing
650 0 Image processing
650 0 Imaging systems
700 1 Firschein, Oscar
700 1 Strat, Thomas M
710 2 United States.|bDefense Advanced Research Projects Agency
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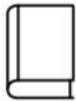
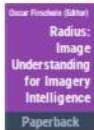
LOCATION	CALL NO.	STATUS
Library Offsite Collections - Books	TA1634 .R33 1997	AVAILABLE

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[Another Search](#)

OCLC #
 Entire Catalog
 System Sorted
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Title **RADIUS : image understanding for imagery intelligence / edited by Oscar Firschein, Thomas M. Strat**
 Publisher San Francisco CA : Morgan Kaufmann Publishers, [1997?]

LOCATION	CALL NO.	STATUS
Library Offsite Collections - Books	TA1634 .R33 1997	AVAILABLE

ISSN/ISBN 1558604502

Descript xxi, 503 p. : ill. (some col.) ; 28 cm

Notes "This document contains technical reports prepared for the Defense Advanced Research Projects Agency (DARPA) Image Understanding Program."

"Approved for public release distribution unlimited."

Subject **RADIUS (Computer program)**

Computer vision
 Remote sensing
 Image processing
 Imaging systems

Alt Author

Firschein, Oscar
 Strat, Thomas M
 United States. Defense Advanced Research Projects Agency

Alt Title Image understanding for imagery intelligence



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Summary

Technical reports prepared for the DARPA Image Understanding Program

APPENDIX HELLER01

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leader 02086cas 2200529 a 4500
001 990012301370106761
005 20210715144806.0
008 980922c19979999cauar1 f1 a0eng d
010 ##$asn 98030174
022 0#$a1525-3287
035 ##$a(MCM)001230137MIT01
035 ##$a(OCOLC)39908102
037 ##$bMorgan Kaufmann, 340 Pine St., 6th Floor, San Francisco, CA 94104
040 ##$aGUA $cGUA $dNSD $dMYG
042 ##$ansdp $alcd
049 ##$aMYGE
050 14$aTA1637 $b.A76
082 10$a621 $213
090 ##$aTA1632.I4
111 2#$aDARPA Image Understanding Workshop.
210 0#$aImage Underst. Workshop $b(1997)
222 #0$aImage Understanding Workshop $b(1997)
240 10$aImage Understanding Workshop (1997)
245 10$aImage Understanding Workshop : $b[proceedings].
246 14$aProceedings ... Image Understanding Workshop
260 ##$aSan Francisco, CA : $bDistributed by Morgan Kaufmann Publishers, Inc., $c[1997-
300 ##$av. : $bill. ; $c28 cm.
310 ##$aAnnual
336 ##$atext $btxt $2rdacontent
337 ##$aunmediated $bn $2rdamedia
338 ##$avolume $bnc $2rdacarrier
515 ##$aVols. for 1997- called also 25th-
515 ##$aVols. for 1997- issued in 2 parts.
650 #0$aImage processing $xDigital techniques $vCongresses.
650 #0$aComputer vision $vCongresses.
650 #0$aOptical pattern recognition $vCongresses.
655 #7$aConference papers and proceedings. $2lcgft
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710 1#$aUnited States. $bDefense Advanced Research Projects Agency.
910 ##$awp031105 $iwp $d031105
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961 ##$aSan Francisco, CA : Distributed by Morgan Kaufmann Publishers, Inc., $a 1997 $a cau
969 ##$a621 $aTA1637 $a39908102 $asn 98030174 $a1525-3287
994 ##$a02 $bMYG

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JOURNAL
Image Understanding Workshop : [proceedings].
DARPA Image Understanding Workshop.; United States. Defense Advanced Research Projects Agency.
1997-
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[Available](#), Stacks TA1632.I4
Holdings: 25th (1997)



In library (0 requests)
1997 v.2



In library (0 requests)
1997 v.1



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Details

Title Image Understanding Workshop : [proceedings].
Creator [DARPA Image Understanding Workshop.](#) [>](#)
[United States. Defense Advanced Research Projects Agency.](#) [>](#)
Subject [Image processing -- Digital techniques](#) [>](#)
[Computer vision](#) [>](#)
[Optical pattern recognition](#) [>](#)
Genre Congresses.
Other title Proceedings ... Image Understanding Workshop
Related titles Earlier title : [ARPA Image Understanding Workshop. Image understanding Workshop](#) [>](#)
Publisher San Francisco, CA : Distributed by Morgan Kaufmann Publishers, Inc.
Creation Date 1997-

Format	v. : ill. ; 28 cm.
Frequency	Annual
Source	Library Catalog
Notes	Vols. for 1997- called also 25th- Vols. for 1997- issued in 2 parts.
Identifier	LC : sn 98030174 ISSN : 1525-3287 OCLC : (OCoLC)39908102

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APPENDIX CV

J. Munford
Curriculum Vitae

Education

University of Wisconsin-Milwaukee - MS, Library & Information Science, 2009
Milwaukee, WI

- Coursework included cataloging, metadata, data analysis, library systems, management strategies and collection development.
- Specialized in library advocacy, cataloging and public administration.

Grand Valley State University - BA, English Language & Literature, 2008
Allendale, MI

- Coursework included linguistics, documentation and literary analysis.
- Minor in political science with a focus in local-level economics and government.

Professional Experience

Researcher / Expert Witness, October 2017 – present
Freelance ● Pittsburgh, Pennsylvania & Grand Rapids, Michigan

- Material authentication and public accessibility determination. Declarations of authenticity and/or public accessibility provided upon research completion. Experienced with appeals and deposition process.
- Research provided on topics of public library operations, material publication history, digital database services and legacy web resources.
- Past clients include Alston & Bird, Arnold & Porter, Baker Botts, Fish & Richardson, Erise IP, Irell & Manella, O'Melveny & Myers, Perkins-Coie, Pillsbury Winthrop Shaw Pittman and Slayden Grubert Beard.

Library Director, February 2013 - March 2015
Dowagiac District Library ● Dowagiac, Michigan

- Executive administrator of the Dowagiac District Library. Located in

Southwest Michigan, this library has a service area of 13,000, an annual operating budget of over \$400,000 and total assets of approximately \$1,300,000.

- Developed careful budgeting guidelines to produce a 15% surplus during the 2013-2014 & 2014-2015 fiscal years while being audited.
- Using this budget surplus, oversaw significant library investments including the purchase of property for a future building site, demolition of existing buildings and building renovation projects on the current facility.
- Led the organization and digitization of the library's archival records.
- Served as the public representative for the library, developing business relationships with local school, museum and tribal government entities.
- Developed an objective-based analysis system for measuring library services - including a full collection analysis of the library's 50,000+ circulating items and their records.

November 2010 - January 2013

Librarian & Branch Manager, Anchorage Public Library ● Anchorage, Alaska

- Headed the 2013 Anchorage Reads community reading campaign including event planning, staging public performances and creating marketing materials for mass distribution.
- Co-led the social media department of the library's marketing team, drafting social media guidelines, creating original content and instituting long-term planning via content calendars.
- Developed business relationships with The Boys & Girls Club, Anchorage School District and the US Army to establish summer reading programs for children.

June 2004 - September 2005, September 2006 - October 2013

Library Assistant, Hart Area Public Library
Hart, MI

- Responsible for verifying imported MARC records and original MARC

cataloging for the local-level collection as well as the Michigan Electronic Library.

- Handled OCLC Worldcat interlibrary loan requests & fulfillment via ongoing communication with lending libraries.

Professional Involvement

Alaska Library Association - Anchorage Chapter

- Treasurer, 2012

Library Of Michigan

- Level VII Certification, 2008
- Level II Certification, 2013

Michigan Library Association Annual Conference 2014

- New Directors Conference Panel Member

Southwest Michigan Library Cooperative

- Represented the Dowagiac District Library, 2013-2015

Professional Development

Library Of Michigan Beginning Workshop, May 2008

Petoskey, MI

- Received training in cataloging, local history, collection management, children's literacy and reference service.

Public Library Association Intensive Library Management Training, October 2011

Nashville, TN

- Attended a five-day workshop focused on strategic planning, staff management, statistical analysis, collections and cataloging theory.

Alaska Library Association Annual Conference 2012 - Fairbanks, February 2012

Fairbanks, AK

- Attended seminars on EBSCO advanced search methods, budgeting, cataloging, database usage and marketing.

Depositions

2019 • Fish & Richardson

IPR Petitions of 865 Patent, Apple v. Qualcomm (IPR2018-001281 / 39521-00421IP & IPR2018-01282 / 39521-00421IP2)

2019 • Erise IP

Implicit, LLC v. Netscout Systems, Inc (Civil Action No. 2:18-cv-53-JRG)

2019 • Perkins-Coie

Adobe Inc. v. RAH Color Technologies LLC (Cases IPR2019-00627, IPR2019-00628, IPR2019-00629 and IPR2019-00646)

2020 • O'Melveny & Myers

Maxell, Ltd. v. Apple Inc. (Case 5:19-cv-00036-RWS)

2021 • Pillsbury Winthrop Shaw Pittman LLP

Intel v. SRC (Case IPR2020-1449)

Limited Case History & Potential Conflicts

Alston & Bird

- Nokia (v. Neptune Subsea, Xtera)

Arnold & Porter

- Ivantis (v. Glaukos)

Erise I.P.

- Apple

v. Future Link Systems (IPRs 6317804, 6622108, 6807505, and 7917680)

v. INVT

v. Navblazer LLC (Case No. IPR2020-01253)

v. Qualcomm (IPR2018-001281, 39521-00421IP, IPR2018-01282, 39521-00421IP2)

v. Quest Nettech Corp, Wynn Technologies (Case No. IPR2019-00XXX, RE. Patent Re38137)

- Fanduel (v CGT)
- Garmin (v. Phillips North America LLC, Case No. 2:19-cv-6301-AB-KS Central District of California)
- Netscout
 - v. Longhorn HD LLC)
 - v. Implicit, LLC (Civil Action No. 2:18-cv-53-JRG)
- Sony Interactive Entertainment LLC
 - v. Bot M8 LLC
 - v. Infernal Technology LLC
- Unified Patents (v GE Video Compression, Civil Action No. 2:19-cv-248)

Fish & Richardson

- Apple
 - v. LBS Innovations
 - v. Masimo (IPR 50095-0012IP1, 50095-0012IP2, 50095-0013IP1, 50095-0013IP2, 50095-0006IP1)
 - v. Neonode
 - v. Qualcomm (IPR2018-001281, 39521-00421IP, IPR2018-01282, 39521-00421IP2)
- Dish Network
 - v. Realtime Adaptive Streaming, Case No 1:17-CV-02097-RBJ)

v. TQ Delta LLC

- Huawei (IPR 76933211)
- Kianxis
- LG Electronics (v. Bell Northern Research LLC, Case No. 3:18-cv-2864-CAB-BLM)
- Metaswitch
- MLC Intellectual Property (v. MicronTech, Case No. 3:14-cv-03657-SI)
- Realtek Semiconductor
- Quectel
- Samsung (v. Bell Northern Research, Civil Action No. 2:19-cv-00286-JRG)
- Texas Instruments

Irell & Manella

- Curium

O'Melveny & Myers

- Apple (v. Maxell, Case 5:19-cv-00036-RWS)

Perkins-Coie

- TCL Industries (v. Koninklijke Philips NV, PTAB Case Nos. IPR2021-00495, IPR2021-00496, and IPR2021-00497)

Pillsbury Winthrop Shaw Pittman

- Intel (v. FG SRC LLC, Case No. 6:20-cv-00315 W.D. Tex)