

# Exhibit A

## CURRICULUM VITAE

Michael T. Goodrich

Dept. of Computer Science  
Bren School of Info. & Computer Sciences  
University of California, Irvine  
Irvine, CA 92697-3435

E-mail: goodrich (at) ieee.org  
<http://www.ics.uci.edu/~goodrich/>  
Phone: (949)824-9366  
Fax: (949)824-4056

**CITIZENSHIP:** U.S.A.

### EDUCATION

Ph.D.	1987	<i>Efficient Parallel Techniques for Computational Geometry</i> Computer Sciences, Purdue Univ. (M.J. Atallah, advisor)
M.S.	1985	Computer Sciences, Purdue Univ.
B.A.	1983	Mathematics and Computer Science, Calvin College

### PROFESSIONAL EXPERIENCE

April '07 to present	Chancellor's Professor, Dept. of Computer Science Univ. of California, Irvine
July '12 to June '13	Chair, Dept. of Computer Science Univ. of California, Irvine
October '06 to June '12	Assoc. Dean for Faculty Dev., Bren School of Info. and Comp. Sci. Univ. of California, Irvine
July '01 to March '07	Professor, Dept. of Computer Science Univ. of California, Irvine
Fall '00	Visiting Professor of Computer Science Brown Univ.
July '96 to June '02	Professor of Computer Science (on leave, from July '01) Johns Hopkins Univ.
July '92 to June '96	Associate Professor of Computer Science Johns Hopkins Univ.
Spring '94	Visiting Associate Professor of Computer Science Univ. of Illinois, Urbana-Champaign
July '87 to June '92	Assistant Professor of Computer Science Johns Hopkins Univ.

### RESEARCH INTERESTS

Algorithm and Data Structure Design  
Information Assurance and Security  
Parallel and Distributed Computing  
Graph and Geometric Algorithms

### HONORS AND AWARDS

- *Compere Loveless Fellowship in Computer Sciences*, Purdue Univ., 1985
- *Research Initiation Award*, National Science Foundation, 1988
- *Oraculum Award for Excellence in Teaching*, Johns Hopkins, 1993, 1994, 1995
- *ACM Recognition of Service Award*, 1996
- *Robert B. Pond, Sr. Award for Excellence in Undergraduate Teaching*, Johns Hopkins, 1998
- *Elected Senior Member*, the Institute of Electrical and Electronics Engineers (IEEE), 1999
- *Spirit of Technology Transition Award*, DARPA Dynamic Coalitions Program, 2002

- *Brown Univ. Award for Technological Innovation* (with R. Tamassia, N. Triandopoulos, D. Yao, and D. Ellis), 2006
- *ACM Distinguished Scientist*, 2006
- *2006 IEEE Computer Society Technical Achievement Award*, “for outstanding contributions to the design of parallel and distributed algorithms for fundamental combinatorial and geometric problems”
- *Fulbright Scholar*, 2007, for senior specialist service to University of Aarhus, Denmark
- *Fellow of the San Diego Supercomputer Center*, 2007
- *Fellow of the American Association for the Advancement of Science (AAAS)*, “for distinguished contributions to parallel and distributed algorithms for combinatorial and geometric problems, and excellence in teaching, academic and professional service, and textbook writing,” 2007
- *Fellow of the Institute of Electrical and Electronics Engineers (IEEE)*, “for contributions to parallel and distributed algorithms for combinatorial and geometric problems,” 2009
- *Fellow of the ACM*, “for contributions to data structures and algorithms for combinatorial and geometric problems,” 2009
- *ICS Dean’s Award for Research*, “for his contributions in the area of parallel and distributed algorithms,” 2014
- *Chancellor’s Award for Excellence in Fostering Undergraduate Research*, Univ. of California, Irvine, 2016
- *Faculty Mentor of the Month*, Undergraduate Research Opportunities Program (UROP), Univ. of California, Irvine, April 2016

## PUBLICATIONS

### Patents and Patent Applications:

- P-1. G. Ateniese, B. de Medeiros, and M.T. Goodrich, “Intermediated Delivery Scheme for Asymmetric Fair Exchange of Electronic Items,” U.S. Patent Application US 2004/0073790 A1, April 15, 2004.
- P-2. M.T. Goodrich and R. Tamassia, “Efficient Authenticated Dictionaries with Skip Lists and Commutative Hashing,” U.S. Patent 7,257,711, August 14, 2007.
- P-3. J.W. Green, J.L. Schultz, Y. Amir, and M.T. Goodrich, “High Refresh-Rate Retrieval of Freshly Published Content using Distributed Crawling,” U.S. Patent 7,299,219, November 20, 2007.
- P-4. R. Tamstorf, M.T. Goodrich, D. Eppstein, “Attribute Transfer Between Computer Models Including Identifying Isomorphic Regions in Polygonal Meshes,” U.S. Patent 8,681,145, March 25, 2014. (also Application US 2010/0238166 A1, September 23, 2010).
- P-5. N. Triandopoulos, M.T. Goodrich, D. Nguyen, O. Ohrimenko, C. Papamanthou, R. Tamassia, C.V. Lopes, “Techniques for Verifying Search Results Over a Distributed Collection,” U.S. Patent, 9,152,716, October 6, 2015.

### Books and Monographs:

- B-1. M.T. Goodrich and R. Tamassia, *Data Structures and Algorithms in Java*, John Wiley and Sons, Inc., 1998.
- B-2. M.T. Goodrich and C.C. McGeoch, eds., *Algorithm Engineering and Experimentation*, Lecture Notes in Computer Science (LNCS), Vol. 1619, Springer-Verlag, 1999.

- B-3. M.T. Goodrich and R. Tamassia, *Data Structures and Algorithms in Java, Second Edition*, John Wiley and Sons, Inc., 2001.
- B-4. M.T. Goodrich and R. Tamassia, *Algorithm Design: Foundations, Analysis, and Internet Examples*, John Wiley and Sons, Inc., 2002.
- B-5. M.T. Goodrich and S.G. Kobourov, eds., *10th Int. Symp. on Graph Drawing (GD)*, Lecture Notes in Computer Science, Vol. 2528, Springer-Verlag, 2002.
- B-6. M.T. Goodrich, R. Tamassia, and D. Mount, *Data Structures and Algorithms in C++*, John Wiley and Sons, Inc., 2004.
- B-7. M.T. Goodrich and R. Tamassia, *Data Structures and Algorithms in Java, Third Edition*, John Wiley and Sons, Inc., 2004.
- B-8. M.T. Goodrich and R. Tamassia, *Data Structures and Algorithms in Java, Fourth Edition*, John Wiley and Sons, Inc., 2006.
- B-9. M.T. Goodrich and R. Tamassia, *Data Structures and Algorithms in Java, Fifth Edition*, John Wiley and Sons, Inc., 2011.
- B-10. M.T. Goodrich and R. Tamassia, *Introduction to Computer Security*, Addison-Wesley, Inc., 2011.
- B-11. M.T. Goodrich, R. Tamassia, and D. Mount, *Data Structures and Algorithms in C++, Second Edition*, John Wiley and Sons, Inc., 2011.
- B-12. M.T. Goodrich, R. Tamassia, and M. Goldwasser, *Data Structures and Algorithms in Python*, John Wiley and Sons, Inc., 2013.
- B-13. M.T. Goodrich, R. Tamassia, and M. Goldwasser, *Data Structures and Algorithms in Java, Sixth Edition*, John Wiley and Sons, Inc., 2014.
- B-14. M.T. Goodrich and R. Tamassia, *Algorithm Design and Applications*, Wiley, 2015.

#### **Book Chapters:**

- Ch-1. M.J. Atallah and M.T. Goodrich, “Deterministic Parallel Computational Geometry,” in *Synthesis of Parallel Algorithms*, J.H. Reif, ed., Morgan Kaufmann, 497–536, 1993.
- Ch-2. M.T. Goodrich, “The Grand Challenges of Geometric Computing,” in *Developing a Computer Science Agenda for High-Performance Computing*, U. Vishkin, ed., ACM Press, 64–68, 1994.
- Ch-3. M.T. Goodrich, “Parallel Algorithms in Geometry,” *CRC Handbook of Discrete and Computational Geometry*, J.E. Goodman and J. O’Rourke, eds., CRC Press, Inc., 669–682, 1997.
- Ch-4. M.T. Goodrich and K. Ramaiyer, “Geometric Data Structures,” *Handbook of Computational Geometry*, J.-R. Sack and J. Urrutia, eds., Elsevier Science Publishing, 463–489, 2000.
- Ch-5. M.T. Goodrich and R. Tamassia, “Simplified Analyses of Randomized Algorithms for Searching, Sorting, and Selection,” *Handbook of Randomized Computing*, S. Rajasekaran, P.M. Pardalos, J.H. Reif, and J.D.P. Rolim, eds., Kluwer Academic Publishers, Vol. 1, 23–34, 2001.
- Ch-6. M.T. Goodrich, “Parallel Algorithms in Geometry,” *Handbook of Discrete and Computational Geometry, Second Edition*, J.E. Goodman and J. O’Rourke, eds., Chapman & Hall/CRC Press, Inc., 953–967, 2004. (Revised version of Ch-3.)
- Ch-7. C. Duncan and M.T. Goodrich, “Approximate Geometric Query Structures,” *Handbook of Data Structures and Applications*, Chapman & Hall/CRC Press, Inc., 26-1–26-17, 2005.

- Ch-8. M.T. Goodrich, R. Tamassia, and L. Vismara, “Data Structures in JDSL,” *Handbook of Data Structures and Applications*, Chapman & Hall/CRC Press, Inc., 43-1–43-22, 2005.
- Ch-9. Y. Cho, L. Bao and M.T. Goodrich, “Secure Location-Based Access Control in WLAN Systems,” *From Problem Toward Solution: Wireless and Sensor Networks Security*, Zhen Jiang and Yi Pan, eds., Nova Science Publishers, Inc., Chapter 17, 2007.
- Ch-10. M.T. Goodrich and M.J. Nelson, “Distributed Peer-to-Peer Data Structures,” *Handbook of Parallel Computing: Models, Algorithms and Applications*, R. Rajasekaran and J. Reif, eds., CRC Press, 17-1–17-17, 2008.
- Ch-11. C.A. Duncan and M.T. Goodrich, “Planar Orthogonal and Polyline Drawing Algorithms,” *Handbook of Graph Drawing and Visualization*, CRC Press, Inc., 223–246, 2013.

#### Journal Papers:

- J-1. M.J. Atallah and M.T. Goodrich, “Efficient Parallel Solutions to Some Geometric Problems,” *Journal of Parallel and Distributed Computing*, **3**(4), 1986, 492–507.
- J-2. M.T. Goodrich, “Finding the Convex Hull of a Sorted Point Set in Parallel,” *Information Processing Letters*, **26**, 1987, 173–179.
- J-3. H. ElGindy and M.T. Goodrich, “Parallel Algorithms for Shortest Path Problems in Polygons,” *The Visual Computer*, **3**(6), 1988, 371–378.
- J-4. M.J. Atallah and M.T. Goodrich, “Parallel Algorithms For Some Functions of Two Convex Polygons,” *Algorithmica*, **3**, 1988, 535–548.
- J-5. M.J. Atallah, R. Cole, and M.T. Goodrich, “Cascading Divide-and-Conquer: A Technique for Designing Parallel Algorithms,” *SIAM Journal on Computing*, **18**(3), 1989, 499–532.
- J-6. M.T. Goodrich, “Triangulating a Polygon in Parallel,” *Journal of Algorithms*, **10**, 1989, 327–351.
- J-7. M.T. Goodrich and M.J. Atallah, “On Performing Robust Order Statistics in Tree-Structured Dictionary Machines,” *Journal of Parallel and Distributed Computing*, **9**(1), 1990, 69–76.
- J-8. M.T. Goodrich and J.S. Snoeyink, “Stabbing Parallel Segments with a Convex Polygon,” *Computer Vision, Graphics and Image Processing*, **49**, 1990, 152–170.
- J-9. J. Johnstone and M.T. Goodrich, “A Localized Method for Intersecting Plane Algebraic Curve Segments,” *The Visual Computer*, **7**(2–3), 1991, 60–71.
- J-10. M.T. Goodrich, “Intersecting Line Segments in Parallel with an Output-Sensitive Number of Processors,” *SIAM Journal on Computing*, **20**(4), 1991, 737–755.
- J-11. R. Cole and M.T. Goodrich, “Optimal Parallel Algorithms for Point-Set and Polygon Problems,” *Algorithmica*, **7**, 1992, 3–23.
- J-12. M.T. Goodrich, “A Polygonal Approach to Hidden-Line and Hidden-Surface Elimination,” *Computer Vision, Graphics, and Image Processing: Graphical Models and Image Processing*, **54**(1), 1992, 1–12.
- J-13. M.T. Goodrich, S. Shauck, and S. Guha, “Parallel Methods for Visibility and Shortest Path Problems in Simple Polygons,” *Algorithmica*, **8**, 1992, 461–486, with addendum in *Algorithmica*, **9**, 1993, 515–516.
- J-14. M.T. Goodrich, C. Ó’Dúnlaing, and C. Yap “Constructing the Voronoi Diagram of a Set of Line Segments in Parallel,” *Algorithmica*, **9**, 1993, 128–141.
- J-15. M.T. Goodrich, “Constructing the Convex Hull of a Partially Sorted Set of Points,” *Computational Geometry: Theory and Applications*, **2**, 1993, 267–278.

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.