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EDUCATION

- 1995 Dr. rer.-nat. (Ph.D.) in computer science and statistics, University of Bonn, Germany, summa cum laude.
- 1993 Diplom (M.Sc.) in computer science and statistics, University of Bonn, Germany.
- 1988 Vordiplom (B.Sc.) in computer science, economics, and medicine, University of Hildesheim, Germany.

ACADEMIC POSITIONS

- 2007– Professor of computer science and electrical engineering, Stanford University.
- 2003–2007 Associate professor of computer science and (since 2006) electrical engineering, Stanford University. Since 2004 director of the Stanford Artificial Intelligence Laboratory (SAIL).
- 1998–2003 Assistant professor and (since 2001) associate professor of computer science, robotics, and automated learning and discovery, Carnegie Mellon University.
- 1995–1998 Research Computer Scientist, Carnegie Mellon University.

INDUSTRIAL, AFFILIATE, AND CONSULTING POSITIONS

- 2009– Senior Advisor, Charles River Ventures.
- 2007– Principal Engineer, Google, Inc.

HONORS AND AWARDS

- 2008 PC World list *Best 100 Products of 2008* (Google Street View)
- 2007 Braunschweig Research Prize
Member, National Academy of Engineering.
Member, Deutsche Akademie der Naturforscher Leopoldina (German Academy of Sciences).
- 2006 Included in *Scientific American 50*

- World Technology Network Award (category: Information Technology) and WTN Fellow.
- AAAI Fellow (American Association of Artificial Intelligence).
- ECCAI Fellow (European Coordinating Committee for Artificial Intelligence).
- Vance D. and Arlene C. Coffman Scholar II, Stanford School of Engineering.
- Wired Magazine *best robot of all times*.
- Included in *Forbes Magazine E-Gang*.
- 2005 Leader of the Stanford Racing Team that won the DARPA Grand Challenge.
- Included in *Popular Science Brilliant Ten*.
- 2004 Honorable mention, 2004 IJCAI-JAIR best paper prize.
- 2003–2006 Reid and Polly Anderson Scholar and (until 2004) David Filo and Jerry Yang Faculty Scholar, Stanford School of Engineering.
- 2003 Best conference paper, International Conference of Field and Service Robotics (FSR).
- Best conference paper, IEEE International Conference on Robotics and Automation (ICRA).
- Best student conference paper, International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS).
- 2002 Finmeccanica endowed faculty chair, School of Computer Science, Carnegie Mellon University.
- 2001 Olympus award, German society for pattern recognition (DAGM).
- 2000 Best conference paper, IEEE International Conference on Robotics and Automation (ICRA).
- 1999 Best conference paper, German Conference of the German society for pattern recognition (DAGM).
- 1999–2003 NSF CAREER.
- 1998 Best conference paper, National Conference on Artificial Intelligence (AAAI).
- 1996 First place, AAAI autonomous mobile robot competition.
- 1994 Second place, AAAI autonomous mobile robot competition.

FIELD SERVICE

- 2005–2008 AAAI Councilor.
- 2005 Founding conference chair, Robotics Science and Systems conference (RSS), Boston.
- Co-chair, International Symposium on Robotics Research (ISRR), San Francisco.
- 2003– Vice President for Development, NIPS Foundation.
- Associate Editor, International Journal of Humanoid Robotics (IJHR).

- 2003 Program co-chair, International Conference on Field and Service Robotics (FSR), Japan.
- 2002–2003 Program chair (2002) and general chair (2003), Neural Information Processing Systems conference (NIPS), Vancouver.
- 1998 Conference chair, Conference on Automated Learning and Discovery (CONALD).
- 1990– Member of numerous editorial boards and organizing committees.

MAJOR PLENARY KEYNOTES

- 2009 International Conference on Engineering Design, Stanford.
Electric Aircraft Symposium, San Bruno.
Annual Conference, Society of Automotive Engineers (SAE), Detroit.
- 2008 Linux World, Opening Keynote, San Francisco.
International Conference on Multimedia and Entertainment (ICME), Germany.
- 2007 Institute of Navigation (ION) GNSS, Fort Worth.
Florida Artificial Intelligence Conference, Key West.
- 2006 IEEE Sensors, Korea.
MIT Emerging Technologies Conference, Cambridge.
Automated Software Engineering Conference (ASE), Tokyo.
European Conference on Machine Learning (ECML), Berlin.
IFAC Mechatronics, Heidelberg.
IEEE World Congress on Computational Intelligence (WCCI), Vancouver.
Innovative Applications of Artificial Intelligence (IAAI), Boston.
Workshop on Algorithmic Foundations of Robotics (WAFR), New York City.
International Multisensory Research Forum (IMRF), Dublin.
German National Conference on AI (KI), Bremen.
International Symposium on 3D Data Processing, Visualization and Transmission (3DPVT), Chapel Hill.
Sensors Expo and Conference, Chicago.
- 2005 Neural information processing systems (NIPS), Vancouver.
German National Conference on AI (KI), Koblenz.
International Conference on Advanced Robotics (ICAR), Seattle.
DARPA Cognitive Systems Conference, Arlington.
- 2004 IEEE International Conference on Intelligent Robots and Systems (IROS), Sendai.
National Conference on Artificial Intelligence (AAAI), San Jose.
- 2002 International Conference on Uncertainty in Artificial Intelligence (UAI), Edmonton.
European Conference on Artificial Intelligence (ECAI), Lyon.

- International Conference on Machine Learning (ICML), Sydney.
- 2001 Belgium Netherlands Artificial Intelligence Conference (BNAIC), Amsterdam.
- International Conference on Field and Service Robotics (FSR), Helsinki.
- 2000 Joint Brazilian and Ibero-American AI conference (SBIA/IBERAMIA), Atibaia, Brazil.
- Australian Conference on Robotics and Automation (ACRA), Melbourne.
- 1999 German National Conference on AI (KI), Bonn.
- Neuro-Fuzzy Conference, Leipzig.

BOOKS (MONOGRAPHS)

- [1] M. Montemerlo and S. Thrun. *The FastSLAM Algorithm for Simultaneous Localization and Mapping*. Springer Tracts in Advanced Robotics, forthcoming.
- [2] S. Thrun, W. Burgard, and D. Fox. *Probabilistic Robotics*. MIT Press, Cambridge, MA, 2005.
- [3] H. Choset, K. Lynch, S. Hutchinson, G. Kantor, W. Burgard, L. Kavraki, and S. Thrun. *Principles of Robotic Motion: Theory, Algorithms, and Implementation*. MIT Press, Cambridge, MA, 2004.
- [4] S. Thrun. *Explanation-Based Neural Network Learning: A Lifelong Learning Approach*. Kluwer Academic Publishers, Boston, MA, 1996.

BOOKS (EDITED VOLUMES)

- [5] S. Thrun, R.A. Brooks, and H. Durrant-Whyte, editors. *Robotics Research: Results of the 12th International Symposium ISRR*. Springer Tracts in Advanced Robotics, Berlin, Germany, 2007.
- [6] S. Yuta, H. Asama, S. Thrun, E. Prassler, and T. Tsubouchi, editors. *Field and Service Robotics: Recent Advances in Research and Applications*. Springer Tracts in Advanced Robotics, Berlin, 2006.
- [7] S. Thrun, G. Sukhatme, S. Schaal, and O. Brock, editors. *Robotics Science and Systems I*. MIT Press, Cambridge, CA, 2005.
- [8] S. Thrun, L. Saul, and K. Obermayer, editors. *Advances in Neural Information Processing Systems 16*. MIT Press, Cambridge, MA, 2004.
- [9] S. Becker, S. Thrun, and K. Obermayer, editors. *Advances in Neural Information Processing Systems 15*. MIT Press, Cambridge, MA, 2003.
- [10] S. Thrun and L.Y. Pratt, editors. *Learning To Learn*. Kluwer Academic Publishers, Boston, MA, 1998.
- [11] J. Franklin, T. Mitchell, and S. Thrun, editors. *Recent Advances in Robot Learning*. Kluwer Academic Publishers, Boston, MA, 1996.

CHAPTERS IN BOOK

- [12] S. Thrun. Simultaneous localization and mapping. In M.E. Jefferies and W.-K. Yeap, editors, *Spatial Mapping Approaches in*

Robotic and Natural Mapping Systems. Springer Tracts in Advanced Robotics, Berlin, 2006.

- [13] A. Lookingbill, D. Lieb, and S. Thrun. Optical flow approaches for self-supervised learning in autonomous mobile robot navigation. In C. Laugier and R. Chatila, editors, *Navigation in Open and Dynamic Environments*. Springer, Berlin, Germany, 2006.
- [14] D. Margaritis, S. Thrun, and C. Faloutsos. Ncube: Fast approximate database queries using bayesian networks. In A. Mittal, A. Kassim, and T. Tan, editors, *Bayesian Network Technologies: Applications and Graphical Models*. IIT India, 2006.
- [15] S. Thrun. Robotics. In *Chapter 25 of "Artificial Intelligence: A Modern Approach (second edition)" by S. Russell and P. Norvig*. Prentice Hall, Englewood Cliffs, NJ, 2002.
- [16] S. Thrun. Robotic mapping: A survey. In G. Lakemeyer and B. Nebel, editors, *Exploring Artificial Intelligence in the New Millennium*. Morgan Kaufmann, 2002.
- [17] D. Fox, S. Thrun, W. Burgard, and F. Dellaert. Particle filters for mobile robot localization. In A. Doucet, N. de Freitas, and N. Gordon, editors, *Sequential Monte Carlo Methods in Practice*, pages 499–516. Springer Verlag, 2001.
- [18] D. Fox, W. Burgard, and S. Thrun. Markov localization for reliable robot navigation and people detection. In *Modeling and Planning for Sensor-Based Intelligent Robot Systems*. Springer Verlag, Berlin, 1999.
- [19] S. Thrun, A. Bücken, W. Burgard, D. Fox, T. Fröhlinghaus, D. Henning, T. Hofmann, M. Krell, and T. Schmidt. Map learning and high-speed navigation in RHINO. In D. Kortenkamp, R.P. Bonasso, and R. Murphy, editors, *AI-based Mobile Robots: Case Studies of Successful Robot Systems*, pages 21–52. MIT Press, Cambridge, MA, 1998.
- [20] S. Thrun and J. O’Sullivan. Clustering learning tasks and the selective cross-task transfer of knowledge. In S. Thrun and L.Y. Pratt, editors, *Learning To Learn*. Kluwer Academic Publishers, 1998.
- [21] S. Thrun. Lifelong learning algorithms. In S. Thrun and L.Y. Pratt, editors, *Learning To Learn*. Kluwer Academic Publishers, 1998.
- [22] S. Thrun and L.Y. Pratt. Learning to learn: Introduction and overview. In S. Thrun and L.Y. Pratt, editors, *Learning To Learn*. Kluwer Academic Publishers, 1998.
- [23] J. O’Sullivan, T. Mitchell, and S. Thrun. Explanation-based neural network learning for mobile robot perception. In K. Ikeuchi and M. Veloso, editors, *Symbolic Visual Learning*. Oxford University Press, 1997.
- [24] T. Mitchell and S. Thrun. Learning analytically and inductively. In D. Steier and T. Mitchell, editors, *Mind Matters: A Tribute to Allen Newell*. Lawrence Erlbaum Associates Publishers, 1996.

- [25] S. Thrun. Exploration in active learning. In M. Arbib, editor, *Handbook of Brain and Cognitive Science*. MIT Press, 1995.
- [26] S. Thrun. A lifelong learning perspective for mobile robot control. In V. Graefe, editor, *Intelligent Robots and Systems*. Elsevier, 1995.
- [27] S. Thrun. The role of exploration in learning control. In D.A. White and D.A. Sofge, editors, *Handbook for Intelligent Control: Neural, Fuzzy and Adaptive Approaches*. Van Nostrand Reinhold, Florence, Kentucky 41022, 1992.

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- [28] A. Petrovskaya and S. Thrun. Model based vehicle tracking for autonomous driving in urban environments. *Autonomous Robots*, 2009.
- [29] M. Montemerlo, J. Becker, S. Bhat, H. Dahlkamp, D. Dolgov, S. Ettinger, D. Haehnel, T. Hilden, G. Hoffmann, B. Huhnke, D. Johnston, S. Klumpp, D. Langer, A. Levandowski, J. Levinson, J. Marcil, D. Orenstein, J. Paefgen, I. Penny, A. Petrovskaya, M. Pflueger, G. Stanek, D. Stavens, A. Vogt, and S. Thrun. Junior: The stanford entry in the urban challenge. *Journal of Field Robotics*, 2008.
- [30] S. Park, F. Pfenning, and S. Thrun. A probabilistic language based upon sampling functions. *ACM Transactions on Programming Languages and Systems (TOPLAS)*, 2008. in press.
- [31] M. Likhachev, D. Ferguson, G. Gordon, A. Stentz, , and S. Thrun. Anytime search in dynamic graphs. *Artificial Intelligence*. Forthcoming.
- [32] M. Matsuoka, A. Chen, S. Singh, A.Y. Ng, and S. Thrun. Autonomous helicopter tracking and localization using a self-surveying camera array. *International Journal of Robotics Research*, Forthcoming.
- [33] S. Thrun, M. Montemerlo, H. Dahlkamp, D. Stavens, A. Aron, J. Diebel, P. Fong, J. Gale, M. Halpenny, G. Hoffmann, K. Lau, C. Oakley, M. Palatucci, V. Pratt, P. Stang, S. Strohband, C. Dupont, L.-E. Jendrossek, C. Koelen, C. Markey, C. Rummel, J. van Niekerk, E. Jensen, P. Alessandrini, G. Bradski, B. Davies, S. Ettinger, A. Kaehler, A. Nefian, and P. Mahoney. Stanley, the robot that won the DARPA Grand Challenge. *Journal of Field Robotics*, 23(9):661–692, 2006.
- [34] J. Pineau, G. Gordon, and S. Thrun. Anytime point-based approximations for large POMDPs. *Journal of Artificial Intelligence Research*, 27:335–380, 2006.
- [35] D. Lookingbill, J. Rogers, J. Curry, D. Lieb, and S. Thrun. Reverse optical flow for self-supervised adaptive autonomous robot navi-

- gation. *International Journal on Computer Vision (IJCV)*, 2006. Forthcoming.
- [36] J. Diebel, S. Thrun, and M. Brünig. A bayesian method for probable surface reconstruction and decimation. *ACM Transactions on Graphics*, 25(1), 2006.
 - [37] B.P. Gerkey, S. Thrun, and G. Gordon. Visibility-based pursuit-evasion with limited field of view. *International Journal on Robotics Research*, 25(4):299–316, 2006.
 - [38] S. Thrun and M. Montemerlo. The GraphSLAM algorithm with applications to large-scale mapping of urban structures. *International Journal on Robotics Research*, 25(5/6):403–430, 2005.
 - [39] S. Thrun, S. Thayer, W. Whittaker, C. Baker, W. Burgard, D. Ferguson, D. Hähnel, M. Montemerlo, A. Morris, Z. Omohundro, C. Reverte, and W. Whittaker. Autonomous exploration and mapping of abandoned mines. *IEEE Robotics and Automation*, 11(4), 2005.
 - [40] N. Roy, G. Gordon, and S. Thrun. Finding approximate POMDP solutions through belief compression. *Journal of Artificial Intelligence Research*, 23:1–40, 2005.
 - [41] M. Bennewitz, W. Burgard, G. Cielniak, and S. Thrun. Learning motion patterns of people for compliant motion. *International Journal of Robotics Research*, 24(1), 2005.
 - [42] S. Thrun, C. Martin, Y. Liu, D. Hähnel, R. Emery-Montemerlo, D. Chakrabarti, and W. Burgard. A real-time expectation maximization algorithm for acquiring multi-planar maps of indoor environments with mobile robots. *IEEE Transactions on Robotics*, 20(3):433–443, 2004.
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 - [45] J. Pineau, M. Montemerlo, N. Roy, S. Thrun, and M. Pollack. Towards robotic assistants in nursing homes: challenges and results. *Robotics and Autonomous Systems*, 42(3–4):271–281, 2003.
 - [46] S. Thrun. Learning occupancy grids with forward sensor models. *Autonomous Robots*, 15:111–127, 2003.
 - [47] D. Hähnel, W. Burgard, and S. Thrun. Learning compact 3D models of indoor and outdoor environments with a mobile robot. *Robotics and Autonomous Systems*, 44:15–17, 2003.
 - [48] M. Bennewitz, W. Burgard, and S. Thrun. Finding and optimizing solvable priority schemes for decoupled path planning techniques for teams of mobile robots. *Robotics and Autonomous Systems*, 41(2):89–99, 2002.

- [49] F. Dellaert, S.M. Seitz, C. Thorpe, and S. Thrun. EM, MCMC, and chain flipping for structure from motion with unknown correspondence. *Machine Learning*, 50(1-2):45–71, 2003.
- [50] S. Thrun. A probabilistic online mapping algorithm for teams of mobile robots. *International Journal of Robotics Research*, 20(5):335–363, 2001.
- [51] S. Thrun, D. Fox, W. Burgard, and F. Dellaert. Robust Monte Carlo localization for mobile robots. *Artificial Intelligence*, 128(1-2):99–141, 2000.
- [52] S. Thrun, M. Beetz, M. Bennewitz, W. Burgard, A.B. Cremers, F. Dellaert, D. Fox, D. Hähnel, C. Rosenberg, N. Roy, J. Schulte, and D. Schulz. Probabilistic algorithms and the interactive museum tour-guide robot Minerva. *International Journal of Robotics Research*, 19(11):972–999, 2000.
- [53] S. Waldherr, S. Thrun, and R. Romero. A gesture-based interface for human-robot interaction. *Autonomous Robots*, 9(2):151–173, 2000.
- [54] D. Fox, W. Burgard, H. Kruppa, and S. Thrun. A probabilistic approach to collaborative multi-robot localization. *Autonomous Robots*, 8(3), 2000.
- [55] D. Fox, W. Burgard, and S. Thrun. Markov localization for mobile robots in dynamic environments. *Journal of Artificial Intelligence Research*, 11:391–427, 1999.
- [56] W. Burgard, A.B. Cremers, D. Fox, D. Hähnel, G. Lakemeyer, D. Schulz, W. Steiner, and S. Thrun. Experiences with an interactive museum tour-guide robot. *Artificial Intelligence*, 114(1-2):3–55, 1999.
- [57] K. Nigam, A. McCallum, S. Thrun, and T. Mitchell. Learning to classify text from labeled and unlabeled documents. *Machine Learning*, 39(2/3):1–32, 1998.
- [58] S. Thrun, D. Fox, and W. Burgard. A probabilistic approach to concurrent mapping and localization for mobile robots. *Machine Learning*, 31:29–53, 1998. Also appeared in *Autonomous Robots* 5, 253–271 (joint issue).
- [59] S. Thrun. Learning metric-topological maps for indoor mobile robot navigation. *Artificial Intelligence*, 99(1):21–71, 1998.
- [60] S. Thrun. Bayesian landmark learning for mobile robot localization. *Machine Learning*, 33(1):41–76, 1998.
- [61] D. Fox, W. Burgard, and S. Thrun. Active Markov localization for mobile robots. *Robotics and Autonomous Systems*, 25(3-4):195–207, 1998.
- [62] D. Fox, W. Burgard, and S. Thrun. The dynamic window approach to collision avoidance. *IEEE Robotics and Automation*, 4(1), 1997.
- [63] S. Thrun. An approach to learning mobile robot navigation. *Robotics and Autonomous Systems*, 15:301–319, 1996.

- [64] S. Thrun and T. Mitchell. Lifelong robot learning. *Robotics and Autonomous Systems*, 15:25–46, 1995.
- [65] K. Möller and S. Thrun. ARC: Adaptive Roboterkontrolle mit Künstlichen Neuronalen Netzen. *Wirtschaftsinformatik*, 33(5):408–419, 1991. In German.

MAGAZINE AND UNREFEREED JOURNAL ARTICLES

- [66] S. Thrun. Why we compete in DARPA’s urban challenge autonomous robot race. *Communications of the ACM*, 50(10):29–31, 2007.
- [67] S. Thrun. A personal account on the development of stanley, the robot that won the darpa grand challenge. *AI Magazine*, 27(4):69–82, 2006.
- [68] S. Thrun. Teaching challenge. *IEEE Robotics and Automation Magazine*, 13:4, 2006.
- [69] V. Verma, R. Simmons, G. Gordon, and S. Thrun. Real-time fault diagnosis. *IEEE Robotics and Automation Magazine*, 11(2):56–66, 2004.
- [70] S. Thrun. Probabilistic robotics. *Communications of the ACM*, 45(3):52–57, 2002.
- [71] S. Thrun. Probabilistic algorithms in robotics. *AI Magazine*, 21(4):93–109, 2000.
- [72] S. Thrun, J. Schulte, and C. Rosenberg. Interaction with mobile robots in public places. *IEEE Intelligent Systems*, pages 7–11, July/August 2000.
- [73] S. Thrun and M. Littman. Book review: Reinforcement Learning by R. Sutton and A. Barto. *AI Magazine*, 21(1):103–105, 2000.
- [74] D. Schulz, W. Burgard, A.B. Cremers, D. Fox, and S. Thrun. Web interfaces for mobile robots in public places. *IEEE Magazine on Robotics and Automation*, 7(1):48–57, 2000.
- [75] S. Thrun, C. Faloutsos, T. Mitchell, and L. Wasserman. Automated learning and discovery: State-of-the-art and research topics in a rapidly growing field. *AI Magazine*, 20(3), 1999.
- [76] S. Thrun. When robots meet people: Research directions in mobile robotics. *IEEE Intelligent Systems*, May/June 1998.
- [77] S. Thrun. To know or not to know: On the utility of models in mobile robotics. *AI Magazine*, 18(1):47–54, 1997.
- [78] A.B. Cremers, J. Buhmann, and S. Thrun. Komplexe lernende Systeme: Der mobile Roboter RHINO. *Künstliche Intelligenz*, 2, 1995. In German.

- [79] J. Buhmann, W. Burgard, A.B. Cremers, D. Fox, T. Hofmann, F. Schneider, J. Strikos, and S. Thrun. The mobile robot Rhino. *AI Magazine*, 16(1), 1995.
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- [81] S. Schuon, C. Theobalt, J. Davis, and S. Thrun. Lidarboost: Depth superresolution for ToF 3D shape scanning. In *Proceedings of Conference for Vision and Pattern Recognition (CVPR)*, 2009.
- [82] D. Dolgov and S. Thrun. Autonomous driving in semi-structured environments: Mapping and planning. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, Kobe, Japan, 2009.
- [83] R. Kümmerle, D. Hähnel, D. Dolgov, S. Thrun, and W. Burgard. Autonomous driving in a multi-level parking structure. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, Kobe, Japan, 2009.
- [84] P. Abbeel, D. Dolgov, A. Ng, and S. Thrun. Apprenticeship learning for motion planning, with application to parking lot navigation. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems*, Nice, France, 2008. IEEE.
- [85] D. Dolgov, M. Montemerlo, and S. Thrun. Path planning for autonomous driving in unknown environments. In *Proceedings of the International Symposium on Experimental Robotics (ISER)*, Athens, Greece, 2008. Springer Tracts in Advanced Robotics (STAR).
- [86] A. Petrovskaya and S. Thrun. Efficient techniques for dynamic vehicle detection. In *Proceedings of the International Symposium on Experimental Robotics (ISER)*, Athens, Greece, 2008. Springer Tracts in Advanced Robotics (STAR).
- [87] D. Dolgov and S. Thrun. Detection of principle directions in unknown environments for autonomous navigation. In O. Brock, J. Trinkle, and F. Ramos, editors, *Proceedings of the Robotics Science and Systems IV*, Zurich, Switzerland, 2008.
- [88] A. Petrovskaya and S. Thrun. Model based vehicle tracking for autonomous driving in urban environments. In O. Brock, J. Trinkle, and F. Ramos, editors, *Proceedings of the Robotics Science and Systems IV*, Zurich, Switzerland, 2008.
- [89] M. Montemerlo, J. Becker, S. Bhat, H. Dahlkamp, D. Dolgov, S. Ettinger, D. Haehnel, T. Hilden, G. Hoffmann, B. Huhnke,

- D. Johnston, S. Klumpp, D. Langer, A. Levandowski, J. Levinson, J. Marcil, D. Orenstein, J. Paefgen, I. Penny, A. Petrovskaya, M. Pflueger, G. Stanek, D. Stavens, A. Vogt, and S. Thrun. Junior, the stanford racing team's robot in the 2007 darpa urban challenge. In *Proceedings of the Symposium on Automation, Assistance and Embedded Real Time Platforms for Transportation (AAET)*, Braunschweig, Germany, 2008.
- [90] Y.M. Kim, D. Chan, C. Theobalt, and S. Thrun. Design and calibration of a multi-view TOF sensor fusion system. In *Proceedings of the CVPR Workshop on Time of Flight Camera based Computer Vision*, Anchorage, Alaska, 2008.
- [91] S. Schuon, C. Theobalt, J. Davis, and S. Thrun. High-quality scanning using time-of-flight depth superresolution. In *Proceedings of the CVPR Workshop on Time of Flight Camera based Computer Vision*, Anchorage, Alaska, 2008.
- [92] D. Dolgov, M. Montemerlo, and S. Thrun. Path planning for autonomous driving in unknown environments. In *Proceedings of the International Symposium on Experimental Robotics (ISER)*, Athens, Greece, 2008. Springer Tracts in Advanced Robotics (STAR).
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- [94] E. de Aguiar, C. Stoll, C. Theobalt, N. Ahmed, H.-P. Seidel, and S. Thrun. Performance capture from sparse multi-view stereo. In *Proceedings of SIGGRAPH*, 2008.
- [95] N. Ahmed, C. Theobalt, H.-P. Seidel, and S. Thrun. Robust fusion of dynamic shape and normal capture for high-quality reconstruction of time-varying geometry. In *Proceedings of the IEEE Conference on Vision and Pattern Recognition (CVPR)*, Anchorage, Alaska, 2008. IEEE.
- [96] N. Ahmed, C. Theobalt, C. Roessl, S. Thrun, and H.-P. Seidel. Dense correspondence finding for parametrization-free animation reconstruction from video. In *Proceedings of the IEEE Conference on Vision and Pattern Recognition (CVPR)*, Anchorage, Alaska, 2008. IEEE.
- [97] E. de Aguiar, C. Theobalt, S. Thrun, and H.-P. Seidel. Automatic conversion of mesh animations into skeleton-based animations. In *Proceedings of Eurographics*, Hellas, Crete, Greece, 2008. Eurographics.
- [98] K. Loewke, D. Camarillo, K. Salisbury, and S. Thrun. Deformable image mosaicing for optical biopsy. In *Proceedings of the International Conference on Computer Vision (ICCV)*, Rio de Janeiro, Brazil. IEEE.

- [99] J. Levinson, M. Montemerlo, and S. Thrun. Map-based precision vehicle localization in urban environments. In W. Burgard, O. Brock, and C. Stachniss, editors, *Proceedings of the Robotics Science and Systems III*, Atlanta, GA, 2007.
- [100] G. Hoffmann, C. Tomlin, M. Montemerlo, and S. Thrun. Autonomous automobile trajectory tracking for offroad driving: Controller design, experimental validation, and racing. In *Proceedings of the American Control Conference*, New York City, NY, 2007.
- [101] D. Stavens, G. Hoffmann, and S. Thrun. Online speed adaptation using supervised learning for high-speed, off-road autonomous driving. In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, Hyderabad, India, 2007. IJCAI.
- [102] D. Stavens and S. Thrun. A self-supervised terrain roughness estimator for off-road autonomous driving. In *Proceedings of the Conference on Uncertainty in AI (UAI)*, 2006.
- [103] M. Montemerlo, S. Thrun, H. Dahlkamp, D. Stavens, and S. Strohband. Winning the DARPA Grand Challenge with an AI robot. In *Proceedings of the AAAI National Conference on Artificial Intelligence*, Boston, MA, 2006. AAAI.
- [104] H. Dahlkamp, A. Kaehler, D. Stavens, S. Thrun, and G. Bradski. Self-supervised monocular road detection in desert terrain. In G. Sukhatme, S. Schaal, W. Burgard, and D. Fox, editors, *Proceedings of the Robotics Science and Systems Conference*, Philadelphia, PA, 2006.
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