
PUBLICATIONS/PRESENTATIONS

JOURNAL PAPERS

- Abu-Ghazaleh, N., Wilsey, P., Fan, X., and Hensgen, D., "Synthesis Variable Instruction Issue Interpreters for Implementing Functional Parallelism on SIMD Computers," *IEEE Transactions on Parallel and Distributed Systems*, pp. 412-413, April 1997.
- Irvine, C. E., "The First ACM Workshop on Education Computer Security," *ACM Special Interest Group on Security and Audit Control Review*, Vol. 15, No. 2, pp. 3-5, 1997.
- Irvine, C. E., "Challenges in Computer Security Education," *IEEE Software*, Vol. 14, No. 5, pp. 110-111, 1997.
- Kanayama, Y. and Hartman, B., "Smooth Local Path Planning for Autonomous Vehicles," *International Journal of Robotics Research*, Vol. 16, No. 3, pp. 263-284, 1997.
- Kanayama, Y. and Fahroo, F., "A New Line Tracking Method for Nonholonomic Vehicles," *International Journal of Robotics Research*, 1997.
- Laitinen, K., Taramaa, J., Heikkila, M., and Rowe, N., "Enhancing Maintainability of Source Programs through Disabbreviation," *Journal of Systems Software*, Vol. 37, pp. 117-128, 1997.
- Lam, S. S. and Xie, G. G., "Group Priority Scheduling," *IEEE/ACM Transactions on Networking*, Vol. 5, No. 2, pp. 205-218, April 1997.
- Lam, S.S., and Xie, G.G., "Burst Scheduling Networks," *Performance Evaluation*, Vol. 31, pp. 133-157, December 1997.
- Lewis, T., "We Don't Need No Regulation," *Scientific American*, p. 52, November 1997.
- Lewis, T., "The Software Economy: Greed Is Good," *IEEE Internet Computing*, pp. 94-96, May-June 1997.
- Lewis, T., "Bringing Up Java," *IEEE Internet Computing*, pp. 110-112, July-August 1997.
- Luqi and Goguen, J., "Formal Methods: Promises and Problems," *IEEE Software*, Vol. 14, No. 1, January 1997.
- Macedonia, M. and Zyda, M., "A Taxonomy for Networked Virtual Environments," *IEEE Multimedia*, Vol. 4, No. 1, pp. 48-56, January-March 1997.
- Pratt, D. R., Pratt, S. M., Waldrop, M. S., Barham, P. T., Ehlert, J. F., and Chrislip, C. A., "Humans in Large-Scale, Real-Time, Networked Virtual Environments," *Presence*, Vol. 6, No. 5, pp. 547-564, 1997.
- Rowe, N. C., "Obtaining Optimal Mobile-Robot Paths with Non-Smooth Anisotropic Cost Functions Using Qualitative-State Reasoning," *International Journal of Robotics Research*, Vol. 16, No. 3, pp. 375-399, June 1997.
- Volpano, D. and Irvine C., "Secure Flow Typing," *Computers and Security*, Vol. 16, No. 2, pp. 137-144, 1997
- Yoneda, K., Kanayama, Y., and Suzuki, K., "Gait and Foot Trajectory Planning for Versatile Motions of a Six Legged Robot," *Journal of Robotic Systems*, Vol. 14, No. 2, pp. 121-133, 1997.

CONFERENCE PAPERS

- Baer, W., "Real-Time Scientific Rendering Simulation for General Sensors," Spring Simulation Interoperability Workshop, Workshop Papers, IST-CF-97-01.2, IST, Orlando, FL, Vol. I, p. 535, 3 March 1997.
-

PUBLICATIONS/PRESENTATIONS

Baer, W., "Toward Standards for Interoperability Simulation Reuse for Infrared (IR)," Fall Simulation Interoperability Workshop, Workshop Papers, IST-CF-97-043, IST, Orlando FL, Vol. II, p. 983, 8-12 September 1997.

Berzins, V., Ibrahim, O., and Luqi, "A Requirements Evolution Model for Computer-Aided Prototyping," *Proceedings of the 9th International Conference on Software Engineering and Knowledge Engineering*, Madrid, Spain, pp. 38-47, 17-20 June 1997.

Berzins, V., "Merging Changes to Software Specifications," *Proceedings of the 1997 ARO Workshop on Requirements Targeting Software and System Engineering: Towards a Scientific Basis*, Munich, Germany, 12-14 October 1997.

Brutzman, D., Zyda, M., Watsen, K., and Macedonia, M., "Virtual Reality Transfer Protocol (VRTP) Design Rationale," *Proceedings of the IEEE Sixth International Workshop on Enabling Technologies: Infrastructure for Collaborative Enterprises, Distributed System Aspects of Sharing a Virtual Reality Workshop*, Cambridge, MA, pp. 179-186, 18-20 June 1997.

Darken, R. P., Cockayne, W. R., and Carmein, D., "The Omni-Directional Treadmill: A Locomotion Device for Virtual Worlds," *Proceedings of UIST 97*, pp. 213-221, 1997.

Irvine, C. E., "Graduate Education in Computer Security," *National Colloquium for Information Systems Security Education*, Linthicum, MD, pp. 135-161, 24 April 1997.

Irvine, C. E., "Security in Innovative New Operating Systems," *Proceedings of the IEEE Symposium on Security and Privacy*, Oakland, CA, pp. 202-203, May 1997.

Irvine, C. E., "Naval Postgraduate School Center for INFOSEC Studies and Research: Teaching the Science of Computer Security," *Proceedings of MILCOM*, Monterey, CA, November 1997.

Irvine, C. E., Warren, D. F., and Stemp, R., "The NPS CISR Graduate Program in INFOSEC Education: Six Years of Experience," *Proceedings of the 20th National Information Systems Security Conference*, Baltimore, MD, pp. 22-30, October 1997.

Kanayama, Y., "Rotary Vehicle that Moves with Three Degrees of Freedom," *Proceedings of the International Conference on Advanced Robotics*, Monterey, CA, pp. 713-718, 7-9 July 1997.

Kanayama, Y. and Fahroo, F., "A New Line Tracking Method for Nonholonomic Vehicles," *Proceedings of the IEEE International Conference on Robotics and Automation*, Albuquerque, NM, pp. 2908-2913, 21-27 April 1997.

Kanayama, Y. and Fahroo, F., "A Circle Tracking Method for Nonholonomic Vehicles," *Proceedings of the Fifth IFAC Symposium on Robot Control*, Nantes, France, pp. 551-558, 3-5 September 1997.

Leonard, T., Berzins, V., Luqi, and Holden, M., "Gathering Requirements from Remote Users," *Proceedings of the 9th International Conference on Tools with Artificial Intelligence*, Newport Beach, CA, pp. 462-471, 3-8 November 1997.

Lundy, G. M. and Bekas, A., "Wireless Communications for a Multiple Robot System1," *Proceedings of MILCOM 97*, 2-5 November 1997.

Lundy, B., "A Tutorial on Network Security," *Proceedings of FORTE/PSTV 97*, November 1997.

Luqi and Berzins, V., "Engineering Automation for Computer-Based Systems," *Proceedings of the 1997 Workshop on Virtual Universities*, Newport Beach, CA, 4 November 1997.

Luqi, "Formal Models and Prototyping," *Proceedings of the 1997 ARO Workshop on Requirements Targeting Software and System Engineering - Towards a Scientific Basis*, Munich, Germany, 12-14 October 1997.

PUBLICATIONS/PRESENTATIONS

- Moore, L., Hensgen, D., Janakiramam, M., Armstrong, R., Kidd, T., Lima, J., Kussow, M., Halderman, M., Freund, R., Wallace, J., and Peterson, L., "System Software Developers Desperately Need Better Simulation Tools," *Western Simulation Multiconference*, Phoenix, AZ, January 1997.
- Morsy, K.A. and Kanayama, Y., "A New Straight Edge Detection Algorithm Using Direction-Controlled Edge Tracking and Random Hitting," *Proceedings of the 1997 IEEE International Symposium on Computational Intelligence in Robotics and Automation*, Monterey, CA, pp. 398-405, 10-11 July 1997.
- Powell, E. and Pratt, D., "The Joint Simulation System Architecture: A Foundation for Future Training Systems," *Proceedings of the 19th Interservice/Industry Training Systems and Education Conference*, Orlando, FL, December 1997.
- Pratt, D. and Beasley, D., "Issues In Modeling and Simulation: Policies and Technologies," *Proceedings of the 1997 Winter Simulation Conference*, Atlanta, GA, December 1997.
- Pratt, D., Peabody, C., and Liby, G., "The Joint Simulation System Software Development Process," *Proceedings of the Ninth Software Technology Conference*, Salt Lake City, UT, April 1997.
- Pratt, S., Ohman, D., Brown, S., Galloway, J., and Pratt, D., "Soldier Station: A Tool For Dismounted Infantry Analysis," *Proceedings of the 1997 Spring Simulation Interoperability Workshop*, Orlando, FL, 3-7 March 1997.
- Rowe, N. C. and Frew, B., "Distinguishing the Picture Captions on the World Wide Web," *Proceedings of ACM Digital Libraries 97*, Philadelphia, PA, July 1997.
- Rowe, N. C. and Frew, B., "Finding Photograph Captions Multimodally on the World Wide Web," *Proceedings of AAAI Spring Symposium on Intelligent Integration and Use of Text, Image, Video, and Audio Corpora*, Stanford, CA, pp. 45-51, March 1997.
- Volpano, D. and Smith, G., "A Type-Based Approach to Program Security," *Proceedings of the 7th International Joint Conference on the Theory and Practice of Software Development*, Lecture Notes in Computer Science 1214, pp. 607-621, 1997.
- Volpano, D. and Smith, G., "Eliminating Covert Flows with Minimum Typings," *Proceedings of the 10th IEEE Computer Security Foundations Workshop*, pp. 156-168, 1997.
- Xie, G.G., and Lam, S.S., "Real-Time Block Transfer Under a Link Sharing Hierarchy," *Proceedings of the IEEE INFOCOM '97*, Kobe, Japan, April 1997.
- Xie, G.G. and Lam S.S., "Admission Control and Loss Management for an Application-Level Statistical Service," *Proceedings of the 1997 IEEE International Conference on Network Protocols*, Atlanta, GA, October 1997.
- Yun, X., Bachmann, E.R., McGhee, R.B., Whalen, R.H., Knapp, R.G., Healey, A.J., and Zyda, M.J., "Testing and Evaluation of an Integrated GPS/INS System for Small AUV Navigation (SANS)," *Proceedings of the 10th International Symposium on Unmanned Untethered Submersible Technology*, Durham, NH, September 1997.
- Zyda, M., Brutzman, D., Darken, R., McGhee, R., Falby, J., Bachmann, E., Watsen, K., Kavanagh, B., and Storms, R., "NPSNET - Large-Scale Virtual Environment Technology Testbed," *Proceedings of the International Conference on Artificial Reality and Tele-Existence*, Tokyo, Japan, pp. 18-26, 3-5 December 1997.

CONFERENCE PRESENTATIONS

- Baer, W., "Real Time Scientific Rendering Simulation for General Sensors," Spring Simulation Interoperability Workshop, Orlando, FL, March 1997.
-

PUBLICATIONS/PRESENTATIONS

Baer, W., "Toward Standards for Interoperability Simulation Reuse for IR," Fall Simulation Interoperability Workshop, Orlando, FL, September 1997.

Berzins, V., "Merging Changes to Software Specifications," ARO Workshop on Requirements Targeting Software and Systems Engineering, Bernried, Germany, 13 October 1997.

Berzins, V., "Why Worry about Change Merging?" Workshop on Virtual Universities, Newport Beach, CA, 4 November 1997.

Darken, R.P., Cockayne, W.R., and Carmein, D., "The Omni-Directional Treadmill: A Locomotion Device for Virtual Worlds," UIST 97, 1997.

Darken, R.P., "Wayfinding in Virtual Worlds," Invited lecture at the American Psychological Association Annual Meeting, Chicago, IL, 18 August 1997.

Darken, R.P., "Navigation in Virtual Environments," Course lecture in Applied Virtual Reality, SIGGRAPH 97, Los Angeles, CA, 4 August 1997.

Darken, R.P., "Navigation in Virtual Worlds: Wayfinding and Locomotion in Real and Not-So-Real Environments," Lecture at the Carnegie Mellon University Human-Computer Interaction Institute Seminar Series, Pittsburgh, PA, 16 April 1997.

Darken, R.P., "Designing for Wayfinding in Virtual Environments," Panel on Designing Interactive Multimedia, ACM Multimedia '97, Seattle, WA, 12 November 1997.

Darken, R.P., "Navigation in Virtual Worlds: Performance Issues," Panel on Performance Issues in Virtual Environments, Virtual Reality Annual International Symposium (VRAIS) 97, Albuquerque, NM, 5 March 1997.

Irvine, C. E., "An Approach to Graduate Education in Computer Security," First ACM Workshop on Education in Computer Security, Monterey, CA, January 1997.

Irvine, C. E., "Internet Security? Only If You Know How," 10th Annual Federal Information System's Security Educators' Association Conference, Gaithersburg, MD, March 1997.

Irvine, C. E., "Graduate Education in Computer Security," National Colloquium for Information Systems Security Education, 24 April 1997.

Irvine, C.E., "Naval Postgraduate School Center for INFOSEC Studies and Research: Teaching the Science of Computer Security," MILCOM '97, Monterey, CA, November 1997.

Irvine, C. E., "Security In Innovative New Operating Systems," IEEE Symposium on Security and Privacy, Oakland, CA, May 1997.

Irvine, C.E., Warren, D. F., and Stemp, R., "The NPS CISR Graduate Program in INFOSEC Education: Six Years of Experience," 20th National Information Systems Security Conference, Baltimore, MD, October 1997.

Irvine, C.E., "Naval Postgraduate School Center for INFOSEC Studies and Research: Teaching the Science of Computer Security," MILCOM '97, Monterey, CA, November 1997.

Lundy, G. M. and Bekas, A., "Wireless Communications for a Multiple Robot System," MILCOM 97, 2-5 November 1997.

PUBLICATIONS/PRESENTATIONS

Luqi, "Formal Models and Prototyping," ARO Workshop on Requirements Targeting Software and Systems Engineering, Bernried, Germany, 13 October 1997.

Luqi, "Engineering Automation for Computer-Based Systems," Workshop on Virtual Universities, Newport Beach, CA, 4 November 1997.

Luqi, "Formal Models and Prototyping," ARO Workshop on Requirements Targeting Software and Systems Engineering, Bernried, Germany, 13 October 1997.

Luqi, "Engineering Automation for Computer Based Systems," Workshop on Virtual Universities, Newport Beach, CA, 4 November 1997.

Luqi, "Merging Changes to Software Specifications," ARO Workshop on Requirements Targeting Software and Systems Engineering, Bernried, Germany, 13 October 1997.

Luqi, "Why Worry about Change Merging?" Workshop on Virtual Universities, Newport Beach, CA, 4 November 1997.

Pratt, D. and Beasley, D., "Issues In Modeling and Simulation: Policies and Technologies," 1997 Winter Simulation Conference, Atlanta, GA, December 1997.

Pratt, D., Peabody, C., and Liby, G., "The Joint Simulation System Software Development Process," Ninth Software Technology Conference, Salt Lake City, UT, April 1997.

Pratt, S., Ohman, D., Brown, S., Galloway, J., and Pratt, D., "Soldier Station: A Tool For Dismounted Infantry Analysis," 1997 Spring Simulation Interoperability Workshop, Orlando, FL, 3-7 March 1997.

Rowe, N., "Distinguishing the Picture Captions on the World Wide Web," ACM Digital Libraries 97, Philadelphia, PA, July 1997.

Rowe, N., "Finding Photograph Captions Multimodally on the World Wide Web," AAAI Spring Symposium on Intelligent Integration and Use of Text, Image, Video, and Audio Corpora, Stanford, CA, March 1997.

Tucker, P., Hu, T., and Shing, M., "The Minmax Programs," 1997 International Symposium on Mathematical Programming (ISMP 97), Lausanne, EPFL, 24-29 August 1997.

Volpano, D., "A Type-Based Approach to Program Security," 7th International Joint Conference on the Theory and Practice of Software Development, Lille, France, April 1997.

Volpano, D., "A Type-Based Approach to Program Security," 7th International Joint Conference on the Theory and Practice of Software Development, Lille, France, April 1997.

Volpano, D., "Eliminating Covert Flows with Minimum Typings," 10th IEEE Computer Security Foundations Workshop, Rockport, MA, June 1997.

Volpano, D., "Secure Information Flow in a Multi-Threaded Imperative Language," Workshop on Security and Languages, DEC Systems Research Center, Palo Alto, CA, October 1997.

Xie, G.G. and Lam, S.S., "Real-time Block Transfer Under a Link Sharing Hierarchy," IEEE INFOCOM '97, Kobe, Japan, 4 April 1997.

Xie, G.G. and Lam S.S., "Admission Control and Loss Management for an Application-Level Statistical Service," 1997 IEEE International Conference on Network Protocols, Atlanta, GA, 29 October 1997.

PUBLICATIONS/PRESENTATIONS

Zyda, M., "NPSNET - Large-Scale Virtual Environment Technology Testbed, International Conference on Artificial Reality and Tele-Existence (ICAT) 97, Tokyo, Japan, 4 December 1997.

Zyda, M. and Brutzman, D. "At Least Ten Unsolved Problems in Networking Large-Scale Virtual Environments (LSVEs)," Tele-Immersion Workshop, Armonk, NY, 21 July 1997.

Zyda, M., "Modeling and Simulation: Linking Entertainment and Defense," 1997 Symposium on Interactive 3D Graphics, Providence, RI, 28 April 1997.

Zyda, M., "Modeling and Simulation: Competitiveness through Collaboration," High Performance Computing and Communications Council Conference, Newport, RI, 26 March 1997.

BOOKS

Cockayne, W. C. and Zyda, M. J., *Mobile Agents*, Manning Press, ISBN: 1-884777-36-8, 1997.

El-Rewini, H. and Lewis, T., *Distributed and Parallel Computing*, Prentice-Hall, 450 pages, 1998.

Lewis, T., *The Friction-Free Economy*, Harper Collins, 255 pages, 1997.

Wu, C. T. and Norman, T. A., *An Introduction to Programming: An Object-Oriented Approach with C++*, McGraw-Hill, 1997.

Zyda, M. and Sheehan, J., eds, *Modeling and Simulation: Linking Entertainment and Defense*, National Academy Press, 181 pages, ISBN 0-309-05842-2, 1997.

CONTRIBUTIONS TO BOOKS

Pratt, D., "Military Entertainment," in *Modeling and Simulation: Linking Entertainment and Defense*, eds., M. Zyda and J. Sheehan, National Academy Press, pp. 165-167, 1997.

Rowe, N. C. and Frew, B., "Automatic Classification of Objects in Captioned Descriptive Photographs for Retrieval," Chapter 4 in *Intelligent Multimedia Information Retrieval*, ed. M. Maybury, pp. 65-79, Cambridge, MA: AAAI Press, 1997.

TECHNICAL REPORTS

Berzins, V., "Requirements Analysis for the CVX," Project Report, CVX Program Office, 1997.

Chin, S.-K., Irvine, C.E., and Frinke, D., "An Information Security Education Initiative for Engineering and Computer Science," Naval Postgraduate School Technical Report, NPS-CS-97-003, Naval Postgraduate School, Monterey, CA, December 1997.

Darken, R.P., "A Formal Study of Wayfinding Performance, Strategies, and Behaviors in Large Virtual Spaces," NRL Technical Report Number 5707-97-9851, 1997.

Irvine, C.E., Warren, D. F., and Stemp, R., "Teaching Computer Security at a Department of Defense University," Naval Postgraduate School Technical Report, NPS-CS-97-002, April 1997.

PUBLICATIONS/PRESENTATIONS

Kresho, J., Hensgen, D., Kidd, T., and Xie, G., "Determining the Accuracy Required in Resource Load Prediction to Successfully Support Application Agility," Naval Postgraduate School Technical Report, NPS-CS-98-001, December 1997.

Luqi, "Using CAPS for ATACMS," Project Report, Army Research Laboratory, 1997.

Luqi, "Computer Aided Prototyping of Real-Time Systems," Final Report, CCR-9058453, National Science Foundation, December 1997.

OTHER

Irvine, C.E., Warren, D.F., Stemp, R., and Clark, P., "Introduction to Computer Security," CD ROM containing instructional materials.

Lewis, T., "www.batmobile.car," *Scientific American*, p. 38, July 1997.

Lewis, T., "Andreesen's Law vs. The Techno Treadmill," *IEEE Internet Computing*, pp. 93-96, September-October 1997.

Lewis, T., "VoIP: Killer App For The Internet?" *IEEE Internet Computing*, pp. 110-112, November-December 1997.

Lewis, T., "The Year I Shoot My TV," *Computer*, pp. 134-136, January 1997.

Lewis, T., "If Java Is the Answer, What Was the Question?" *Computer*, pp. 133-136, March 1997.

Lewis, T., "Absorb and Extend: Resistance Is Futile!" *Computer*, pp. 110-112, May 1997.

Lewis, T., "Emergent Behavior, Emergent Profits," *Computer*, pp. 118-120, July 1997.

Lewis, T., "Digitopolis Meets Encalming Technology," *Computer*, pp. 134-136, September 1997.

Lewis, T., "Cars, Phones, and Tamagotchi Tribes," *Computer*, pp. 142-144, November 1997.

Luqi, CAPS Software

Shimeall, S. C., and Shimeall, T. J., "Don't Waste Your Bugs," *Software Development*, March 1997.

Zyda, M., and Zyda, F., "NPSNET-IV: Inserting the Human into the Networked Synthetic Environment," *SIGGRAPH Video Review*, Issue 124, Entry 16, SIGGRAPH 97, Los Angeles, CA, 3-9 August 1997.

PUBLICATIONS/PRESENTATIONS

PUBLICATIONS/PRESENTATIONS
