

Miguel Velez

Publications

Refereed Journal Articles

- [7] Joshua Sunshine, Karl Naden, Sven Stork, Jonathan Aldrich, and Éric Tanter. “First-class State Change in Plaid”. In: *SIGPLAN Notices* 46.10 (Oct. 2011), pp. 713–732.
- [6] Joseph F. Maranzano, Sandra A. Rozsypal, Gus H. Zimmerman, Guy W. Warnken, Patricia E. Wirth, and David M. Weiss. “Architecture Reviews: Practice and Experience”. In: 22.2 (Mar. 2005), pp. 34–43.
- [5] Gail C. Murphy and David Notkin. “Reengineering with Reflexion Models: A Case Study”. In: *Computer* 30.8 (Aug. 1997), pp. 29–36.
- [4] David Harel. “Statecharts: A Visual Formalism for Complex Systems”. In: *Sci. Comput. Program.* 8.3 (June 1987), pp. 231–274.
- [3] W. A. Wulf, R. L. London, and M. Shaw. “An Introduction to the Construction and Verification of Alphard Programs”. In: *IEEE Trans. Softw. Eng. (TSE)* 2.4 (July 1976), pp. 253–265.
- [2] Frank DeRemer and Hans Kron. “Programming-in-the-Large Versus Programming-in-the-Small”. In: *IEEE Trans. Softw. Eng. (TSE)* SE-2.2 (June 1976), pp. 80–86.
- [1] D. L. Parnas. “On the Criteria to Be Used in Decomposing Systems into Modules”. In: *Commun. ACM* 15.12 (Dec. 1972), pp. 1053–1058.

Refereed Conference Publications

- [6] Miguel Velez, Jason Sawin, Alexia Ingerson, and David Chiu. "Improving Bitmap Execution Performance Using Column-Based Metadata". In: *The IEEE 4th International Conference on Future Internet of Things and Cloud*. Vienna, Austria, Aug. 2016.
- [5] Prasad Kawthekar and Christian Kästner. "Sensitivity Analysis For Building Evolving & Adaptive Robotic Software". In: *Proceedings of the IJCAI Workshop on Autonomous Mobile Service Robots (WSR)*. New York, NY, July 2016.
- [4] David Garlan. "Software Architecture: A Travelogue". In: *Proceedings of the on Future of Software Engineering*. FOSE 2014. Hyderabad, India: ACM, June 2014, pp. 29–39.
- [3] Joshua Sunshine, Karl Naden, Sven Stork, Jonathan Aldrich, and Éric Tanter. "First-class State Change in Plaid". In: *Proc. Int'l Conf. Object-Oriented Programming, Systems, Languages and Applications (OOPSLA)*. OOPSLA '11. Portland, Oregon, USA: ACM, Oct. 2011, pp. 713–732.
- [2] David Garlan and Bradley Schmerl. "Architecture-driven Modelling and Analysis". In: *Proceedings of the Eleventh Australian Workshop on Safety Critical Systems and Software - Volume 69*. SCS '06. Melbourne, Australia: Australian Computer Society, Inc., 2006, pp. 3–17.
- [1] Frank DeRemer and Hans Kron. "Programming-in-the Large Versus Programming-in-the-small". In: *Proceedings of the International Conference on Reliable Software*. Los Angeles, California: ACM, Apr. 1975, pp. 114–121.

Books

- [3] Paul Clements, David Garlan, Len Bass, Judith Stafford, Robert Nord, James Ivers, and Reed Little. *Documenting Software Architectures: Views and Beyond*. Pearson Education, 2002.
- [2] Mary Shaw and David Garlan. *Software Architecture: Perspectives on an Emerging Discipline*. Upper Saddle River, NJ, USA: Prentice-Hall, Inc., 1996.
- [1] Erich Gamma, Richard Helm, Ralph Johnson, and John Vlissides. *Design Patterns: Elements of Reusable Object-oriented Software*. Boston, MA, USA: Addison-Wesley Longman Publishing Co., Inc., 1995.

Technical Reports

- [2] Rick Kazman, Mark Klein, and Paul Clements. *ATAM: Method for Architecture Evaluation*. Tech. rep. CMU/SEI-2000-TR-004. Pittsburgh, PA: Software Engineering Institute, Carnegie Mellon University, 2000.
- [1] David Garlan and Mary Shaw. *An Introduction to Software Architecture*. Technical Report CMU-CS-94-166. CMU, Jan. 1994.

Miscellaneous

- [5] Miguel Velez and Jason Sawin. *Improving the Efficiency of CHA through Parallelization*. Poster. Inquiry at St. Thomas. May 2016.
- [4] Miguel Velez and Jason Sawin. *Faster WAH Compression Querying through the Use of Metadata*. Poster. Consortium for Computing Sciences in Colleges Midwest Region. 1st place Discovery Track. Oct. 2015.
- [3] Miguel Velez and Armando Solar-Lezama. *Simpler Implementation of Sketches through Enhanced Expressiveness*. Poster. MIT Summer Research Poster Session. Aug. 2015.
- [2] Miguel Velez. *Current and Future Relationships Between Robots and Humans*. Summa Cum Laude Paper. Apr. 2015.
- [1] Miguel Velez, Peter Gittins, and Jason Sawin. *Extending SMILES to Encode Reaction Mechanisms*. Poster. Inquiry at St. Thomas. May 2014.