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RESEARCH INTERESTS

Programmer Productivity, including Software Engineering, Search-driven Development, and Domain Analysis.

EDUCATION

Ph.D. Computer Science, University of California Santa Cruz, *Expected August, 2015.*

Dissertation: “Source Code Curation, Tooling for the Code Forager.”

Committee: Jim Whitehead (ADVISOR), Luca de Alfaro, Cormac Flanagan.

M.S. Software Engineering, San Jose State University, 2006.

Thesis: “Building Systems Using Patterns: Creating Knowledge Maps.”

Advisor: M.E. Fayad.

B.S. Information Systems Engineering, Catholic University, Nicaragua, 2001.

EMPLOYMENT

Graduate Research Assistant, UC Santa Cruz (Santa Cruz, CA), 2010 - Present.

Research Assistant, Jim Whitehead, Fall 2013–Present.

Project: “Xylem: Crowdsourced Program Verification Game.”

Research Assistant, Jim Whitehead, Fall 2011–Fall 2012.

Project: “Botprint: A Mixed Initiative Robot Design Tool.”

Research Assistant, Neoklis Polyzotis, Fall 2010–Fall 2011.

Project: “Automatic Index Tuning: Tools for Online Index Tuning.”

Consultant, Infomotor Inc. (San Francisco, CA), 2010 - 2012.

Consultant, Vergencemedia Inc. (San Francisco, CA), 2007 - 2008.

Software Engineer, Pearson VUE (Bloomington, MN), 2006 - 2009.

TEACHING

University of California Santa Cruz

Teaching Assistant, Brenda Laurel, CMPM 178: Human-Centered Design Research, Winter 2015.

Teaching Assistant, Luca de Alfaro, CMPS 121: Mobile Applications, Spring 2012.

Teaching Assistant, Terry Allen, TIM 50: Business Information Systems, Fall 2011.

San Jose State University

Teaching Assistant, M.E. Fayad, CMPE 296G: Software Architectures, Spring 2005.

Teaching Assistant, M.E. Fayad, CMPE 195G: Software Patterns, Spring 2004.

Teaching Assistant, M.E. Fayad, CMPE 132: Software Engineering II, Fall 2004.

BOOKS

Fayad, M. E., **Sanchez, H. A.**, Hegde, S. G. K., Basia, A., & Vakil, A. (2014). Software Patterns, Knowledge Maps, and Domain Analysis. CRC Press, 2014. ISBN 9781466571433.

RESEARCH

Publications

Sanchez, H., Whitehead, J. (2015). Source Code Curation on StackOverflow: The Vesperin System. ICSE, 2015. (to appear).

Logas, H., Whitehead, J., Mateas, M., Vallejos, R., Scott, L., Shapiro, D., Murray, J., Compton, K., Osborn, J., Salvatore, O., Lin, Z., **Sanchez, H.**, Shavlovsky, M., Cetina, D., Clementi, S., and Lewis, C. Software Verification Games: Designing Xylem, The Code of Plants. Presented at the 9th International Conference on the Foundations of Digital Games (FDG 2014). Ft. Lauderdale, FL, USA, April 3-7, 2014.

Sanchez, H. (2013). SNIPR: Complementing Code Search with Code Retargeting Capabilities. ICSE, 1423–1426.

Jimenez, I., **Sanchez, H.**, Tran, Q. T., & Polyzotis, N. (2012). Kaizen: A Semi-Automatic Index Advisor (pp. 685–688). Presented at the SIGMOD '12: Proceedings of the 2012 ACM SIGMOD International Conference on Management of Data, New York, New York, USA: ACM Request Permissions. doi:10.1145/2213836.2213932

Jimenez, I., LeFevre, J., Polyzotis, N., **Sanchez, H.**, & Schnaitter, K. (2011). Benchmarking Online Index-Tuning Algorithms. IEEE Data Eng. Bull., 34(4), 28–35.

Fayad, M. E., **Sanchez, H. A.**, & Singh, S. K. (2010). Knowledge Maps - Fundamentally Modular Approach to Software Architecture, Design, Development and Deployment. SEDE,

127–133.

Sanchez, H. A., & Fayad, M. E. (2006). The Branding Analysis Pattern (pp. 361–364). Presented at the IEEE International Conference on Computer Systems and Applications, 2006, IEEE. doi:10.1109/AICCSA.2006.205114

Fayad, M. E., Hamza, H. S., & **Sanchez, H. A.** (n.d.). Towards Scalable and Adaptable Software Architectures (pp. 102–107). Presented at the IRI - 2005 IEEE International Conference on Information Reuse and Integration, Conf, 2005., IEEE. doi:10.1109/IRI-05.2005.1506457

Gresh, J., McKim, J., **Sanchez, H.** The Dynamic Mapping Design Pattern. Presented at the 12th Pattern Language of Programs (PLOP 2005). Allerton Park, Monticello, IL, USA, September 7-10, 2005.

Fayad, M. E., Hamza, H. S., & **Sanchez, H. A.** (2003). A Pattern Language for an Effective Class Responsibility Collaborator (CRC) Cards. IRI, 584–587. doi:10.1109/IRI.2003.1251469

Posters

Huascar Sanchez. SNIPR: Complementing Code Search with Code Retargeting Capabilities. ICSE: Doctoral Symposium, May 2013.

Zhongpeng Lin, **Huascar Sanchez**, Jim Whitehead. Botprint: A Mixed Initiative Robot Design Tool. UC Santa Cruz *Research Review Day*, October 18, 2012.

Work in Progress

Sanchez, H. A., Whitehead, E. J. (2015). Multi-staging StackOverflow Code Examples via Method Slicing.

Sanchez, H. A., Whitehead, E. J. (2015). Code Example Summarization Model based on The Precedence-constrained Knapsack Problem.

PROFESSIONAL AFFILIATIONS

Member, Association of Computing Machinery (ACM), 2005–Present.

Member, IEEE, 2013–Present.

EXTERNAL REFERENCES

Available upon request.