The effects of UML modeling on the quality of software

Nugroho, A.

Curriculum Vitae

Ariadi Nugroho was born in Blitar, east Java – Indonesia on September 27, 1979. He obtained his bachelor degree in Informatics Engineering from AKPRIND Institute of Science and Technology in Yogyakarta, Indonesia. After two years working in several IT companies in Indonesia, he decided to pursue a graduate study in the Netherlands. Amongst the three universities in the Netherlands (TU Delft, Utrecht University, Leiden University) that had accepted his application, Ariadi considered the ICT in Business program in Leiden University best fitted to his interests and ambitions. He started his master program in ICT in Business in 2004 and graduated in 2006. During this master program he received scholarships from Nuffic (Delta Scholarship) and Leiden University. Ariadi's research interest has been in the area of software modeling: he completed his master program with a thesis titled Modeling Web Service Orchestration with Paradigm (Paradigm is a coordination language developed at LIACS) under the supervision of Dr. Luuk Groenewegen. After finishing his master study, Ariadi immediately continued with his PhD research that focused on investigating the benefits of UML modeling in software development. His PhD research was funded by the STW under the umbrella of the FINESSE project. He was appointed as a PhD researcher at Leiden Institute of Advanced Computer Science (LIACS) and was supervised by Dr. Michel R.V. Chaudron. As part of his research, Ariadi worked on a part-time basis at Logica (www.logica.com), from which he obtained most of the empirical data used in his research. During his PhD research, Ariadi has co-authored several papers in peer-reviewed international publications. His workshop paper entitled "On the Relation between Class Size and Modeling Effort" received a best paper award at the Model Size Metrics Workshop in Nashville, Tennessee - USA, in 2007. He also received two best paper awards from ACM SIGSOFT and Springer at the MODELS conference in Toulouse, France, for a paper that reports on a novel method for assessing the quality of UML models. In addition to his research activities, Ariadi was responsible for Teaching Assistant for the Requirement Engineering and Software Engineering courses at LIACS.

Acknowledgements

During my PhD research, I obtained much more knowledge and experience in the area of software engineering, and particularly in the area of model-driven software development and empirical software engineering. I also had ample opportunities to collaborate closely with partners from the academia and industry, and I am very grateful to have such a wonderful experience. I am very pleased to finally finish my research project, and I would like to show my deepest gratitude to the people who have helped me during my PhD research.

Particularly, I would like to thank Dr. Michel Chaudron for his supervision and collaboration during my research project. I also greatly enjoyed my assignment at LIACS, particularly for the stimulating and inspiring discussions and informal chats with colleagues at LIACS. Therefore, I would like to express my deepest gratitude to all colleagues at LIACS. Special thanks go to my fellow PhD student and office roommate Werner Heijstek for the discussions, collaborations, and personal companion during my PhD appointment.

I also had insightful discussions and a pleasant collaboration on software fault prediction with the Simula Research Laboratory, thus I would like to thank Prof. Erik Arisholm who has made this possible. I also thank Prof. Dr. Arjan van Gemund, Alexander Feldman and other partners from the FINESSE project, who have been supportive and constructive in the course of the project. I am also indebted to Bas Flaton, Wang Meiyu, Siu Wai Tang, and Robin van der Broek for their involvement and contributions by performing their final bachelor/master's thesis within my research project. I also thank Christian F.J. Lange for his collaboration and advices in the beginning of my PhD.

I spent nearly half of my PhD research at Logica, during which I gathered empirical data and had inspiring discussions with software engineers from various software projects. I would like to show my gratitude to my mentor at Logica, Dennis Geluk, who has been very eager to help me in many ways. I also thank Onno van der Straaten and Suzana da Mota Silva who have also assisted me during my earlier days at Logica. My gratitude also goes to Leo Ammerlaan, Dirk de Groot, and Aad van Kempen for their managerial support during my assignment at Logica, and to Hans de Vreeze and Marco Stikkelorum for their support within the Working Tomorrow program.

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