Yutian Tang

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Current position

Ph.D. candidate,The Hong Kong Polytechnic University, Hong Kong

Areas of specialization

Software Product Line • Configuration System

Education

2013 BSc in Computer Science, Jilin University, China
2017 PhD in Software Engineering, The Hong Kong Polytechnic University, Hong Kong

Grants, honors, membership & awards

2016 Student member of IEEE
2014 Student member of Hong Kong Computer Society
2013-2017 Ph.D scholarship, Department of Computing, The Hong Kong Polytechnic University
2012 Intermediate Title of Software Engineer(China Qualification Certificate of CS Tech. Proficiency)

Publications

Conference Papers

2017a **Yutian Tang**, Hareton Leung, "StiCProb: A Novel Feature Mining Approach Using Conditional Probability", *In Proceedings of 24th IEEE Internaltional Conference on Software Analysis, Evolution, and Reengineering (SANER)* pp 45-55

2017b **Yutian Tang**, Hareton Leung, "Constructing Feature Model by Identifying Variability-aware Modules", *In Proceedings of 25th IEEE International Conference on Program Conprehension (ICPC).*

2015a **Yutian Tang**, Hareton Leung, "A Top-down Feature Mining Framework for Software Product Line". *In Proceedings of International Conference on Enterprise Information System (ICEIS)* pp 71-81.

2015b **Yutian Tang**, Hareton Leung, "Feature Mining for Product Line Construction", *The First International Conference on Advances and Trends in Software Engineering(SOFTENG)* pp29-33.

Software

2017-current **TypeC: Variability-aware C-program IDE**, is a variability-aware type checker and manage #ifdef variability in C. TypeC is your Swiss Knife in processing variability introduced by C conditional compiling and assist in finding potential type errors. For more information, please visit project webpage: http://www.chrisyttang.org/typec/

2016-current **LoongFMR: Loong Feature Model Recovery Toolkit**, Loong FMR is an extension on Loong Plug-in, and works as a conditional compilation parser, for example using #ifdef and #endif statements. However, in contrast to traditional preprocessors, which typically work on plain text or tokens, Loong provides a number of innovations. The conditional compilation in C allows project in a dynamic mode with configuration options selected. LoongFMR follows this pattern and extends it to Java. Therefore, module is the basic component in this research and decided by configurations. For more information, please visit project webpage: http://www.chrisyttang.org/loong_fmr/

2015-current **Loong: Colored IDE for Feature Locating**, Loong is a software product line tool for analyzing and decomposing legacy code and constructing product line. It follows the paradigm of virtual separation of concerns, i.e., developers do not physically extract the feature code, and it allows developers to select seeds for each feature inside the feature model. Then the feature mining process will start to extract code segments that implement each feature. Code fragments belonging to a feature are shown with a background colorFor more information, please visit project webpage: http://www.chrisyttang.org/loong/.