## http://academic.research.microsoft.com/RankList?entitytype=1&topDomainID=2&subDomainID=4&last=5&start=1&end=200



Academic Top publications in Software Engineering

Publication »
Conference »
Journal »
Organization »

Keyword »

Computer Science	Software Engineering	Last 5 Years	
Publication			Citations
Preliminary design of JML:	a behavioral interface specification lang	uage for java (2006) (Citations: 338)	338
Digital Image Processing (2	008) (Citations: 180)		180
The DaCapo benchmarks:	java benchmarking development and ar	nalysis (2006) (Citations: 156)	156
Object-oriented analysis an	d design with applications, third edition	(2008) (Citations: 150)	150
Valgrind: a framework for h	eavyweight dynamic binary instrumenta	ition (2007) (Citations: 149)	149
A Fast Linear-Arithmetic So	lver for DPLL(T) (2006) (Citations: 121	)	121
PRISM: A Tool for Automati	c Verification of Probabilistic Systems (	2006) (Citations: 121)	121
EXE: automatically generati	ng inputs of death (2006) (Citations: 11	1)	111
Software Architecture (2008	B) (Citations: 105)		105
Modular Software Design w	ith Crosscutting Interfaces (2006) (Cita	tions: 90)	90
Computation orchestration:	A basis for wide-area computing (2006	) (Citations: 79)	79
Web Services Business Pro	ocess Execution Language Version 2.0	(2007) (Citations: 77)	77
A Local Shape Analysis Bas	sed on Separation Logic (2006) (Citation	ns: 77)	77
Perracotta: mining temporal	API rules from imperfect traces (2006)	(Citations: 77)	77
Z3: An Efficient SMT Solver	(2008) (Citations: 76)		76
The FRACTAL component	model and its support in Java (2006) (C	Citations: 72)	72
Design by Contract with JN	IL (2006) (Citations: 71)		71
Solving SAT and SAT Modu procedure to DPLL(T) (200	llo Theories: From an abstract DavisF 6) (Citations: 64)	PutnamLogemannLoveland	64
Who should fix this bug? (2)	006) (Citations: 63)		63
Maintaining mental models:	a study of developer work habits (2006	(Citations: 63)	63
Feature oriented refactoring	g of legacy applications (2006) (Citation:	s: 62)	62
An Overview of CaesarJ (2	006) (Citations: 61)		61
Feature-based survey of m	odel transformation approaches (2006)	(Citations: 60)	60
Mining metrics to predict co	mponent failures (2006) (Citations: 60)		60
Feedback-Directed Randor	n Test Generation (2007) (Citations: 60	)	60
Self-Managed Systems: an	Architectural Challenge (2007) (Citation	ns: 59)	59
Practical Model - Based Te	sting - A tools approach (2006) (Citation	ns: 59)	59
Exploring the Structure of C Proprietary Code (2006) (C	complex Software Designs: An Empirica itations: 58)	l Study of Open Source and	58
CP-Miner: Finding Copy-Pa	ste and Related Bugs in Large-Scale S	oftware Code (2006) (Citations: 56)	56
A Decision Procedure for B	it-Vectors and Arrays (2007) (Citations	: 55)	55
Concurrency: State Models	and Java Programs (2006) (Citations:	54)	54
	of dynamically adaptive software (2006)		54
Aspectual mixin layers: asp	ects and features in concert (2006) (Ci	tations: 54)	54
Software Security: Building	Security In (2006) (Citations: 53)		53
Noxes: a client-side solution	n for mitigating cross-site scripting attac	ks (2006) (Citations: 53)	53
Guest Editor's Introduction:	Model-Driven Engineering (2006) (Cita	tions: 53)	53

## #37

Data Mining Static Code Attributes to Learn Defect Predictors (2007) (Cita ons: 53)	53
Mining email social networks (2006) (Citations: 52)	52
Web Services Description Language (WSDL) Version 2.0 Part 1: Core Language (2007) (Citations: 51)	51
What's Decidable About Arrays? (2006) (Citations: 51)	51
Feature Diagrams: A Survey and a Formal Semantics (2006) (Citations: 51)	51
Dynamic Frames: Support for Framing, Dependencies and Sharing Without Restrictions (2006) (Citations: 51)	51
Comparison and Evaluation of Clone Detection Tools (2007) (Citations: 51)	51
Coloured Petri Nets and CPN Tools for modelling and validation of concurrent systems (2007) (Citations: 50)	50
Information Needs in Collocated Software Development Teams (2007) (Citations: 50)	50
Automatic Meaning Discovery Using Google (2006) (Citations: 49)	49
Context-oriented Programming (2008) (Citations: 49)	49
Discovering Early Aspects (2006) (Citations: 48)	48
A Systematic Review of Software Development Cost Estimation Studies (2007) (Citations: 47)	47
Object-Oriented Metrics in Practice (2006) (Citations: 47)	47
A join point for loops in AspectJ (2006) (Citations: 46)	46
Designing Software Product Lines with UML 2.0: From Use Cases to Pattern-Based Software Architectures (2006) (Citations: 46)	46
An Expressive Aspect Language for System Applications with Arachne (2006) (Citations: 45)	45
Model driven security: From UML models to access control infrastructures (2006) (Citations: 45)	45
Design Pattern Detection Using Similarity Scoring (2006) (Citations: 45)	45
The Current State and Future of Search Based Software Engineering (2007) (Citations: 45)	45
The jastadd extensible java compiler (2007) (Citations: 45)	45
Advancing Candidate Link Generation for Requirements Tracing: The Study of Methods (2006) (Citations: 45)	45
Shape Analysis for Composite Data Structures (2007) (Citations: 43)	43
Mop: an efficient and generic runtime verification framework (2007) (Citations: 43)	43
Process modeling in Web applications (2006) (Citations: 42)	42
Formal Verification of a C Compiler Front-End (2006) (Citations: 42)	42
Explicitly distributed AOP using AWED (2006) (Citations: 41)	41
Introduction to Normative Multiagent Systems (2007) (Citations: 41)	41
"Cloning Considered Harmful" Considered Harmful (2006) (Citations: 41)	41
Verifying feature-based model templates against well-formedness OCL constraints (2006) (Citations: 41)	41
A framework for implementing pluggable type systems (2006) (Citations: 41)	41
Using task context to improve programmer productivity (2006) (Citations: 40)	40
DECKARD: Scalable and Accurate Tree-Based Detection of Code Clones (2007) (Citations: 40)	40
The implications of complexity for integrated resources management (2007) (Citations: 39)	39
SYNERGY: a new algorithm for property checking (2006) (Citations: 39)	39
Modeling Heterogeneous Real-time Components in BIP (2006) (Citations: 38)	38
Model-driven Development of Complex Software: A Research Roadmap (2007) (Citations: 38)	38
Free on-line dictionary of computing (2006) (Citations: 38)	38
Efficient path conditions in dependence graphs for software safety analysis (2006) (Citations: 38)	38
Aspectual Feature Modules (2008) (Citations: 38)	38
Tom: Piggybacking Rewriting on Java (2007) (Citations: 37)	37

How Are Java Software Developers Using the Eclipse IDE? (2006) (Citations: 36)	
An Open Extensible Tool Environment for Event-B (2006) (Citations: 36)	
Locating faults through automated predicate switching (2006) (Citations: 36)	
Modular checking for buffer overflows in the large (2006) (Citations: 36)	36
Using Architecture Models for Runtime Adaptability (2006) (Citations: 35)	35
Evolving software product lines with aspects: an empirical study on design stability (2008) (Citations: 35)	35
Software Testing Research: Achievements, Challenges, Dreams (2007) (Citations: 35)	35
On the Automatic Modularization of Software Systems Using the Bunch Tool (2006) (Citations: 35)	35
Ten iterative steps in development and evaluation of environmental models (2006) (Citations: 34)	34
Interprocedural Shape Analysis with Separated Heap Abstractions (2006) (Citations: 34)	34
Hybrid Concolic Testing (2007) (Citations: 34)	34
Composing design patterns: a scalability study of aspect-oriented programming (2006) (Citations: 34)	34
The Theory of Timed I/O Automata (2009) (Citations: 33)	33
Thread algebra for strategic interleaving (2007) (Citations: 33)	33
The Embedded Systems Design Challenge (2006) (Citations: 33)	33
The YICES SMT Solver (2006) (Citations: 33)	33
XSnippet: mining For sample code (2006) (Citations: 33)	33
Relationship aspects (2006) (Citations: 33)	33
LIME: A coordination model and middleware supporting mobility of hosts and agents (2006) (Citations: 33)	33
	33
iStar: towards practical verification for java (2008) (Citations: 33)	32
SOFA 2.0: Balancing Advanced Features in a Hierarchical Component Model (2006) (Citations: 32)	
CUTE and jCUTE: Concolic Unit Testing and Explicit Path Model-Checking Tools (2006) (Citations: 32)	32
Using positive tainting and syntax-aware evaluation to counter SQL injection attacks (2006) (Citations: 32)	
Clone Detection Using Abstract Syntax Suffix Trees (2006) (Citations: 32)	32
Dytan: a generic dynamic taint analysis framework (2007) (Citations: 32)	32
Corporate wiki users: results of a survey (2006) (Citations: 31)	31
MAPO: mining API usages from open source repositories (2006) (Citations: 31)	31
Directives for Composing Aspect-Oriented Design Class Models (2006) (Citations: 31)	31
Reverse Engineering of Design Patterns from Java Source Code (2006) (Citations: 31)	31
Tracking Code Clones in Evolving Software (2007) (Citations: 31)	31
Matching and Merging of Statecharts Specifications (2007) (Citations: 31)	31
Mining Aspects from Version History (2006) (Citations: 31)	31
Why Programs Fail: A Guide to Systematic Debugging (2006) (Citations: 31)	31
IkeWiki: A Semantic Wiki for Collaborative Knowledge Management (2006) (Citations: 30)	30
Deciding Bit-Vector Arithmetic with Abstraction (2007) (Citations: 30)	30
From dalkon to agitator: lessons and challenges in building a commercial tool for developer testing (2006) (Citations: 30)	30
Selecting Best Practices for Effort Estimation (2006) (Citations: 30)	30
Exceptions and aspects: the devil is in the details (2006) (Citations: 30)	30
Bidirectional Model Transformations in QVT: Semantic Issues and Open Questions (2007) (Citations: 29)	29
JavaTM on the bare metal of wireless sensor devices: the squawk Java virtual machine (2006) (Citations: 29)	29
Testing services and service-centric systems: challenges and opportunities (2006) (Citations: 29)	29

#114

3,111,111,111,111,111,111,111,111,111,1	
An empirical study of fine-grained software modifications (2006) (Citations: 29)	29
Research Directions in Requirements Engineering (2007) (Citations: 29)	29
Modular typestate checking of aliased objects (2007) (Citations: 29)	29
How Clones are Maintained: An Empirical Study (2007) (Citations: 29)	29
Framework for Instruction-level Tracing and Analysis of Program Executions (2006) (Citations: 29)	29
On the architectural alignment of ATL and QVT (2006) (Citations: 28)	28
Defect-Based Delay Testing of Resistive Vias-Contacts A Critical Evaluation1 (2009) (Citations: 28)	28
Challenges in automotive software engineering (2006) (Citations: 28)	28
Disciplining Orchestration and Conversation in Service-Oriented Computing (2007) (Citations: 28)	28
Program element matching for multi-version program analyses (2006) (Citations: 28)	28
Expressing different conceptual models of join point selections in aspect-oriented design (2006) (Citations: 28)	28
Toward the Reverse Engineering of UML Sequence Diagrams for Distributed Java Software (2006) (Citations: 28)	28
J&: nested intersection for scalable software composition (2006) (Citations: 28)	28
System architecture evaluation using modular performance analysis: a case study (2006) (Citations: 27)	27
Testing a Software Product Line (2007) (Citations: 27)	27
Expressiveness + Automation + Soundness: Towards Combining SMT Solvers and Interactive Proof Assistants (2006) (Citations: 27)	27
A framework and tool supports for generating test inputs of AspectJ programs (2006) (Citations: 27)	27
Towards Regulatory Compliance: Extracting Rights and Obligations to Align Requirements with Regulations (2006) (Citations: 27)	27
On Goal-based Variability Acquisition and Analysis (2006) (Citations: 27)	27
Predicting Faults from Cached History (2007) (Citations: 27)	27
A Practical and Complete Approach to Predicate Refinement (2006) (Citations: 27)	27
Automated Termination Analysis for Haskell: From Term Rewriting to Programming Languages (2006) (Citations: 27)	27
Elephant 2000: a programming language based on speech acts (2007) (Citations: 26)	26
Modular dynamic reconfiguration in Virtex FPGAs (2006) (Citations: 26)	26
A Framework for Security Requirements Engineering (2006) (Citations: 26)	26
Putting it all together - Formal verification of the VAMP (2006) (Citations: 26)	26
Adaptive Service Composition in Flexible Processes (2007) (Citations: 26)	26
Bigraphical Models of Context-Aware Systems (2006) (Citations: 26)	26
Instant consistency checking for the UML (2006) (Citations: 26)	26
Environment Abstraction for Parameterized Verification (2006) (Citations: 26)	26
Parseweb: a programmer assistant for reusing open source code on the web (2007) (Citations: 26)	26
Automatic Identification of Bug-Introducing Changes (2006) (Citations: 26)	26
Disambiguating the Documentation of Variability in Software Product Lines: A Separation of Concerns, Formalization and Automated Analysis (2007) (Citations: 26)	26
Change Distilling: Tree Differencing for Fine-Grained Source Code Change Extraction (2007) (Citations: 26)	26
Search Algorithms for Regression Test Case Prioritization (2007) (Citations: 26)	26
Static detection of cross-site scripting vulnerabilities (2008) (Citations: 26)	26
HDD: hierarchical Delta Debugging (2006) (Citations: 26)	26
Lazy Abstraction with Interpolants (2006) (Citations: 26)	26

Type-Grecking Software Product Lines - A Portnar Approach (2000) (Gitations, 20)	∠0
Policy support for call control (2006) (Citations: 25)	25
Model-driven development: The good, the bad, and the ugly (2006) (Citations: 25)	
Framework-Specific Modeling Languages with Round-Trip Engineering (2006) (Citations: 25)	
Validating timed UML models by simulation and verification (2006) (Citations: 25)	
Detection of Duplicate Defect Reports Using Natural Language Processing (2007) (Citations: 25)	
View merging in the presence of incompleteness and inconsistency (2006) (Citations: 25)	
Searching for Shapes in Cryptographic Protocols (2007) (Citations: 25)	25
Stochastic Model Checking (2007) (Citations: 25)	25
Covering Arrays for Efficient Fault Characterization in Complex Configuration Spaces (2006) (Citations: 25)	25
Towards a Unifying Theory for Choreography Conformance and Contract Compliance (2007) (Citations: 25)	25
Mondrian: An agile visualization framework (2006) (Citations: 25)	25
Kodkod: A Relational Model Finder (2007) (Citations: 25)	25
Information Flow Control for Java Based on Path Conditions in Dependence Graphs (2006) (Citations: 25)	25
Feature Location Using Probabilistic Ranking of Methods Based on Execution Scenarios and Information Retrieval (2007) (Citations: 25)	25
Global Grammar Constraints (2006) (Citations: 24)	24
Automatic Test Generation: A Use Case Driven Approach (2006) (Citations: 24)	24
Antichains: A New Algorithm for Checking Universality of Finite Automata (2006) (Citations: 24)	24
Situational method engineering: combining assembly-based and roadmap-driven approaches (2006) (Citations: 24)	24
Sampling-based Approximation Algorithms for Multi-stage Stochastic Optimization (2007) (Citations: 24)	24
Live updating operating systems using virtualization (2006) (Citations: 24)	24
MCMAS: A Model Checker for Multi-agent Systems (2006) (Citations: 24)	24
Global Software Engineering: The Future of Socio-technical Coordination (2007) (Citations: 24)	24
A Model Checking Approach for Verifying COWS Specifications (2008) (Citations: 24)	24
STXXL: standard template library for XXL data sets (2008) (Citations: 24)	24
Aspect Categories and Classes of Temporal Properties (2006) (Citations: 24)	24
Semantic clustering: Identifying topics in source code (2007) (Citations: 24)	24
Tool-assisted unit-test generation and selection based on operational abstractions (2006) (Citations: 24)	24
On Metric Temporal Logic and Faulty Turing Machines (2006) (Citations: 24)	24
Programs with Lists Are Counter Automata (2006) (Citations: 24)	24
SMArTIC: towards building an accurate, robust and scalable specification miner (2006) (Citations: 24)	24
Verifying Concurrent Message-Passing C Programs with Recursive Calls (2006) (Citations: 24)	24
Bogor/Kiasan: A k-bounded Symbolic Execution for Checking Strong Heap Properties of Open Systems (2006) (Citations: 24)	24
Defending Critical Infrastructure (2006) (Citations: 23)	23
Choreography and Orchestration Conformance for System Design (2006) (Citations: 23)	23
Mutual authentication protocol for RFID conforming to EPC Class 1 Generation 2 standards (2007) (Citations: 23)	23
Is abstraction the key to computing? (2007) (Citations: 23)	
Architecture-based Self-Adaptation in the Presence of Multiple Objectives (2006) (Citations: 23)	23
Symbolic invariant verification for systems with dynamic structural adaptation (2006) (Citations: 23)	23
Statistically rigorous java performance evaluation (2007) (Citations: 23)	23

Aspects of Composition in the Reflex AOP Kernel (2006) (Citations: 23)	23
Role Migration and Advancement Processes in OSSD Projects: A Comparative Case Study (2007) (Citations: 23)	
A Model for Developing Component-Based and Aspect-Oriented Systems (2006) (Citations: 23)	23

©2011 Microsoft Corporation. All rights reserved.

1 2 3 4 5 6 Next

Help | Feedback | Follow Us | Terms of Use | Specific Terms | Trademarks | Privacy Statement

