Yannis Smaragdakis
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EDUCATIONAL BACKGROUND

Ph.D. in Computer Sciences, December 1999, **University of Texas at Austin**. (Advisor: Don S. Batory)

M.Sc. in Computer Sciences, May 1995, **University of Texas at Austin**.

B.Sc. in Computer Science, June 1993, **University of Crete, Heraklion**. Crete / Greece.

EMPLOYMENT HISTORY

Assistant Professor, College of Computing, **Georgia Institute of Technology**, 2000-present.

Research Assistant, Department of Computer Sciences, **University of Texas at Austin**, Jan. 1996-December 1999.

Researcher, **Microsoft Research**, Summer 1995, Summer 1996, Summer 1997.

Teaching Assistant, Department of Computer Sciences, **University of Texas at Austin**, September 1994-May 1995.

Network Administrator, **FORTH** (Foundation of Research and Technology, Hellas) and **University of Crete** Computer Center, November 1990-May 1992.

FIELDS OF INTEREST

The systems and languages side of Software Engineering.

- Object-oriented language design and implementation (esp. multiparadigm programming, OO components, distributed programming in OO languages).
- Advanced tools to facilitate program construction (esp. program generators, domain-specific languages, automatic testing, software components).
- Memory management and program locality.

I. TEACHING

A. Courses Taught

Term, Year	Course	# Students	Effectiveness[1]
Spring 2000	CS 4210 *Advanced Operating Systems*	28	4.8
Fall 2000	CS 8803 *Memory Management and Program Locality*	6	4.8
Spring 2001	CS 4210 *Advanced Operating Systems*	36	4.7
Fall 2001	CS 8803 *Object-Oriented Systems and Languages*	13	4.9
Spring 2002	CS 4210 *Advanced Operating Systems*	45	4.8
Fall 2002	CS 8803 *Object-Oriented Systems and Languages*	23	4.9
Spring 2003	CS 4210 *Advanced Operating Systems*	39	4.8
Fall 2003	CS 6246 *Object-Oriented Systems and Languages*	40	4.6
Spring 2004	CS 4210 *Advanced Operating Systems*	37	4.7
Fall 2004	CS 6246 *Object-Oriented Systems and Languages*	37	4.7
Spring 2005	CS 1322 *Object-Oriented Programming*	256 (60 CS)	3.5
Fall 2005	CS 1322 *Object-Oriented Programming*	166 (17 CS)	3.5
Fall 2005	CS 6246 *Object-Oriented Systems and Languages*	30	5.0

1. Reported score (out of 5) in "Instructor was an effective teacher" question on student evaluations.(This is the main single metric of instructor performance at Georgia Tech.)

B. Teaching Distinctions

Student-nominated for the 2003 College of Computing Faculty Teaching Award.

Among six academic faculty members named by students graduating with Honors (class of 2003) as "having had the most significant impact on them during their time at Georgia Tech." Interaction with students was entirely through classroom teaching.

Faculty award in Spring 2006 by the "Minorities in CS" student group at Georgia Tech.

C. Curriculum Development

Redesigned the teaching material and project work for CS 4210: Advanced Operating Systems. The new project is designed to combine course material with practical motivation. It consists of the design and implementation of a multi-threaded web server, eventually leading to a fully distributed, scalable web server. 4210 students have commented particularly favorably on this project. The new teaching material (lecture notes, homeworks, etc.) are used by all instructors teaching 4210.

Developed two graduate courses in Memory Management and Program Locality and in Object-Oriented Systems and Languages. The latter course has become a regular graduate offering in the College (CS 6246) and has been approved as a breadth course in the area of Programming Languages and Compilers.

D. Individual Student Guidance

D.1. Ph.D. Students Supervised

Brian McNamara, since April 2000, graduated Aug. 2004. Thesis title: "Multi-paradigm programming: novel devices for implementing functional and logic programming constructs in C++". Work has resulted in publications [C.12][JnR.1][W.2][W.4][J.2][J.3][W.6]. Graduated and now at Microsoft.

Eli Tilevich, since September 2000. Working on language support for distributed computing. Thesis title: "Software Tools for Separating Distribution Concerns". Work has resulted in publications [C.15][W.5][C.16][C.17][J.7][C.19][C.21][C.24][C.28]. Graduated (Dec. 05) and accepted position as Assistant Professor at Virginia Tech.

Dave Zook, since January 2002. Working on domain-specific languages and language syntax tools. Work has resulted in publications [C.18][CnR.1][C.23].

Christoph Csallner, since Fall 2003. Working on automatic testing. Work has resulted in publications [J.6][C.22][C.25][C.27].

Shan Shan Huang, since Fall 2003. Working on application generators. Recipient of the Intel fellowship and the NSF graduate fellowship. Work has resulted in publications [C.18][CnR.1][C.23][C.26].

D.2. Other Ph.D. Special Problems students

Lex Spoon (Spring 2001). Tony Hannan (Spring 2006).

D.3. M.S. Thesis/Project students.

Marcus Handte (Summer 2002—work has resulted in publication [C.24]); Christoph Csallner (Summer 2002); Nikitas Liogkas (Spring 2003—work has resulted in publication [J.7]); Stephan Urbanski (Summer 2003—work has resulted in publication [C.17]).

D.4. M.S. Special Problems students

Dean Pu Mao (Summer, Fall 2001); Marcus Handte (Spring 2002); Christoph Csallner (Spring 2002); Stephan Urbanski (Spring 2003); Zack Ross (Summer, Fall 2003); Daniel Popescu (Spring 2005); Ranjith Subramanian (Spring 2006—work has resulted in publication [C.29]).

D.5. Undergraduate Special Problems students.

Austin Chau (Spring, Summer, Fall 2001); Kane See (Spring, Summer, Fall 2001); Hailemelekot Seifu (Summer, Fall 2001); Zach Haehn (Summer 2002); Shakti Chauhan (Fall 2005); Muhammad Ahsan Hussain (Spring 2006).

II. RESEARCH AND CREATIVE SCHOLARSHIP

A. Theses/Dissertations

[T.1] *Implementing Large-Scale Object-Oriented Components*, Ph.D. Dissertation, Department of Computer Sciences, University of Texas at Austin, 1999.

B. Refereed Publications

B.1. Journal Articles

See http://graphics.cs.ucdavis.edu/~lfeng/research/jrank.html for a ranking of CS journals. This source distinguishes journals into "Premium", "Leading", "Reputable" and "Others". ACM TOMACS and Performance Evaluation are *Premium* journals in Software Technology. ACM TOSEM and the Journal of Functional Programming are *Premium* journals in Programming Languages and Software Engineering. Software Practice & Experience is a *Leading* journal in the same area.

[J.1] Yannis Smaragdakis and Don Batory, "Mixin Layers: An Object-Oriented Implementation Technique for Refinements and Collaboration-Based Designs", *ACM Transactions on Software Engineering and Methodologies*, 11(2): 215-255, April 2002.

[J.2] Yannis Smaragdakis and Brian McNamara, "FC++: Functional Tools for Object-Oriented Tasks", *Software: Practice & Experience*, 32(10): 1015-1033, August 2002.

[J.3] Brian McNamara and Yannis Smaragdakis, "Functional Programming with the FC++ Library", *Journal of Functional Programming (JFP)*, 14(4): 429-472, July 2004, Cambridge University Press.

[J.4] Yannis Smaragdakis, Scott Kaplan, and Paul Wilson, "The EELRU Adaptive Replacement Algorithm", *Performance Evaluation*, 53(2): 93-123, July 2003.

[J.5] Scott Kaplan, Yannis Smaragdakis, and Paul Wilson, "Flexible Reference Trace Reduction for VM Simulations", *ACM Transactions on Modeling and Computer Simulation*, 13(1): 1-38, January 2003.

[J.6] Christoph Csallner and Yannis Smaragdakis, "JCrasher: An Automatic Robustness Tester for Java", *Software: Practice & Experience*, 34(11): 1025-1050, September 2004.

[J.7] Nikitas Liogkas, Blair MacIntyre, Elizabeth Mynatt, Yannis Smaragdakis, Eli Tilevich, and Stephen Voida, "Automatic Partitioning: A Promising Approach to Prototyping Ubiquitous Computing Applications", *IEEE Pervasive Computing*, 3(3): 40-47, July-September 2004.

B.2. Books and Parts of Books

[B.1] Yannis Smaragdakis and Don Batory, "Application Generators", survey article, in J.G. Webster (ed.), *Encyclopedia of Electrical and Electronics Engineering*, John Wiley and Sons, 2000.

[B.2] Yannis Smaragdakis, "A Personal Outlook on Generator Research", in C. Lengauer, D. Batory, C. Consel, and M. Odersky (eds.), *Domain-Specific Program Generation*, Lecture Notes in Computer Science (LNCS) 3016, Springer-Verlag, 2004.

B.3. Invited Keynote addresses

[K.1] Yannis Smaragdakis, "Program Generators and the Tools to Make Them", invited (keynote) presentation for the 2004 ACM symposium on *Partial Evaluation and Program Manipulation (PEPM'04)*, the 2004 international conference on the *Principles and Practice of Declarative Programming (PPDP'04)*, the 2004 *Static Analysis Symposium (SAS'04)* and the 2004 international symposium on *Logic-Based Program Synthesis and Transformation (LOPSTR'04)*.

B.4. Conference Papers

Competitive conferences are the most prestigious publication outlet in Computer Science. Conferences such as ICSE, ECOOP, SIGMETRICS, and ICFP are widely considered "premium". Conferences such as ICDCS, Middleware, ASE, and USENIX (the USENIX Annual Technical Conference) are often just as competitive but are viewed as slightly less prestigious. Conferences such as GPCE and ISMM are highly-regarded but very focused (and, thus, less competitive).

[C.1] Yannis Smaragdakis and Don Batory, "DiSTiL: a Transformation Library for Data Structures", *Conference on Domain-Specific Languages* (DSL '97), p. 257-271, Santa Barbara, California, October 1997, p. 257-270. [42%]

[C.2] Don Batory, Bernie Lofaso, and Yannis Smaragdakis, "JTS: Tools for Implementing Domain-Specific Languages", *5th International Conference on Software Reuse* (ICSR '98), Victoria, British Columbia, Jun. 1998, p.143-155. [**32**%]

[C.3] Yannis Smaragdakis and Don Batory, "Implementing Reusable Object-Oriented Components", *5th International Conference on Software Reuse* (ICSR '98), Victoria, British Columbia, June 1998, p. 36-45. [**32**%]

[C.4] Yannis Smaragdakis and Don Batory, "Implementing Layered Designs with Mixin Layers", *12th European Conference on Object-Oriented Programming* (ECOOP '98), Brussels, Belgium, July 1998. In Lecture Notes in Computer Science (LNCS) 1445, Springer-Verlag, p. 550-570. [**19**%]

[C.5] Don Batory, Yannis Smaragdakis, and Lou Coglianese, "Architectural Styles As Adaptors", *First Working Conference on Software Architecture* (1999), San Antonio, Texas, February 1999. [**30**%]

[C.6] Yannis Smaragdakis, Scott Kaplan, and Paul Wilson, "EELRU: Simple and Effective Adaptive Page Replacement", *1999 ACM SIGMETRICS Annual Conference* (SIGMETRICS '99), Atlanta, Georgia, May 1999, p. 122-133. [**19.5**%]

[C.7] Scott Kaplan, Yannis Smaragdakis, and Paul Wilson, "Trace Reduction for Virtual Memory Simulations", *1999 ACM SIGMETRICS Annual Conference* (SIGMETRICS '99), Atlanta, Georgia, May 1999, p. 47-58. [**19.5**%]

[C.8] Paul Wilson, Scott Kaplan, and Yannis Smaragdakis, "The Case for Compressed Caching in Virtual Memory Systems", *1999 USENIX Annual Technical Conference* (USENIX '99), Monterey, CA, June 1999, p.101-116. [**36.5%. 1 of 3 "Outstanding Papers"**]

[C.9] Yannis Smaragdakis and Don Batory, "Scoping Constructs for Program Generators", *First Symposium on Generative and Component-Based Software Engineering (GCSE)*, October 1999. In Lecture Notes in Computer Science (LNCS) 1799, Springer-Verlag, p. 65-78. [38%]

[C.10] Don Batory, Richard Cardone, and Yannis Smaragdakis, "Object-Oriented Frameworks and Product Lines", *1st Software Product-Lines Conference (SPLC1), 2000*. [46.5%]

[C.11] Yannis Smaragdakis, and Paul Wilson, "Performing Replacement in Modem Pools", *2000 USENIX Annual Technical Conference* (USENIX '00), San Diego, California, June 2000, p.277-292. [**30**%]

[C.12] Brian McNamara and Yannis Smaragdakis, "Functional Programming in C++", *International Conference on Functional Programming (ICFP), 2000*, Montreal, Canada, September 2000, p.118-129. [**22**%]

[C.13] Yannis Smaragdakis and Don Batory, "Mixin-Based Programming in C++", in the *Generative and Component-Based Software Engineering Symposium (GCSE)*, Erfurt, Germany, October 2000. In Lecture Notes in Computer Science (LNCS) 2177, Springer-Verlag, p. 163-177. [40%]

[C.14] Yannis Smaragdakis, "Layered Development with (Unix) Dynamic Libraries", *7th International Conference on Software Reuse* (ICSR '02), April 2002. In Lecture Notes in Computer Science (LNCS) 2319, Springer-Verlag, p. 33-45. [**33**%]

[C.15] Eli Tilevich and Yannis Smaragdakis, "J-Orchestra: Automatic Java Application Partitioning", *16th European Conference on Object-Oriented Programming* (ECOOP '02). In Lecture Notes in Computer Science (LNCS) 2374, Springer-Verlag, p. 178-204. [**25**%]

[C.16] Eli Tilevich and Yannis Smaragdakis, "NRMI: Natural and Efficient Middleware", *International Conference on Distributed Computer Systems (ICDCS)* 2003, p. 252-261. [**17.5**%]

[C.17] Eli Tilevich, Stephan Urbanski, Yannis Smaragdakis and Marc Fleury, "Aspectizing Server-Side Distribution", *2003 Automated Software Engineering conference (ASE'03)*, p. 130-141. [**13**%]

[C.18] David Zook, Shan Shan Huang, and Yannis Smaragdakis, "Generating AspectJ Programs with Meta-AspectJ", *Generative Programming and Component Engineering (GPCE) 2004* Conference, p. 1-18. [**Best Paper Award. 33% (25 accepted/75 submissions)**]

[C.19] Eli Tilevich and Yannis Smaragdakis, "Portable and Efficient Distributed Threads for Java", *2004 ACM Middleware* Conference, p. 478-492. [**14**%]

[C.20] Yannis Smaragdakis, "General Adaptive Replacement Policies", *2004 International Symposium on Memory Management (ISMM 2004)*, p. 108-119. [**34**%]

[C.21] Eli Tilevich and Yannis Smaragdakis, "Binary Refactoring: Improving Code Behind the Scenes", *2005 International Conference on Software Engineering (ICSE 2005)*, p. 264-273. [**14**%]

[C.22] Christoph Csallner and Yannis Smaragdakis, "Check 'n Crash: Combining Static Checking and Testing", *2005 International Conference on Software Engineering (ICSE 2005)*, p. 422-431. [**14**%]

[C.23] Shan Shan Huang, David Zook and Yannis Smaragdakis, "Statically Safe Program Generation with Safe-gen", *Generative Programming and Component Engineering (GPCE) 2005* Conference, p. 309-326. [**29**%]

[C.24] Eli Tilevich, Yannis Smaragdakis, and Marcus Handte, "Appletizing: Running Legacy Java Code Remotely From a Web Browser", *2005 International Conference on Software Maintenance (ICSM 2005)*, p.91-100. [**29**%]

[C.25] Christoph Csallner and Yannis Smaragdakis, "Dynamically Discovering Likely Interface Invariants", *2006 International Conference on Software Engineering (ICSE 2006), Emerging Results track*, p.861-864. [**33**%]

[C.26] Shan Shan Huang and Yannis Smaragdakis, "Easy Language Extension with Meta-AspectJ", *2006 International Conference on Software Engineering (ICSE 2006), Emerging Results track*, p.865-868. [**33**%]

[C.27] Christoph Csallner and Yannis Smaragdakis, "DSD-Crasher: A Hybrid Analysis Tool for Bug Finding", *International Symposium on Software Testing and Analysis (ISSTA 2006)*. [**Best paper award**. **22**%]

[C.28] Eli Tilevich and Yannis Smaragdakis, "Transparent Program Transformations in the Presence of Opaque Code", *Generative Programming and Component Engineering conference (GPCE 2006)*. [**34**%]

[C.29] Ranjith Subramanian, Yannis Smaragdakis and Gabriel Loh, "Adaptive Caches: Effective Shaping of Cache Behavior to Workloads", *39th IEEE/ACM International Symposium on Microarchitecture* (*MICRO 2006*). [**24**%]

B.5. Refereed Workshop Papers

[W.1] Yannis Smaragdakis and Don Batory, "Building Product-Lines with Mixin-Layers", *ECOOP '99 Workshop on Product-Line Architectures*.

[W.2] Brian McNamara and Yannis Smaragdakis, "Static Interfaces in C++", in the *C++ Template Programming Workshop*, Erfurt, Germany, October 2000. [48%]

[W.3] Yannis Smaragdakis, "Interfaces for Nested Classes", 8th *Foundations of Object-Oriented Languages* workshop, London, England, January 2001.

[W.4] Brian McNamara and Yannis Smaragdakis, "Functional Programming with the FC++ Library", *2001 Workshop on C++ Template Programming*. [45%]

[W.5] Eli Tilevich and Yannis Smaragdakis, "Automatic Application Partitioning: The J-Orchestra Approach", *ECOOP 2002 Workshop on Mobile Object Systems*.

[W.6] Brian McNamara and Yannis Smaragdakis, "Syntax Sugar for FC++: lambda, infix, monads, and more", *Declarative Programming in the Context of OO Languages (DPCOOL'03)* at PLI'03.

C. Non-Refereed Publications

C.1. Journal Articles (editor-reviewed but not refereed)

[JnR.1] Brian McNamara and Yannis Smaragdakis, "Functional Programming in C++ Using the FC++ Library", *ACM SIGPLAN Notices*, 36(4): 25-30, April 2001.

C.2. Books and Parts of Books

[BnR.1] Kei Davis, Yannis Smaragdakis, and Joerg Striegnitz, "Multiparadigm Programming in Object-Oriented Languages", in *ECOOP 2001 workshop reader*, Lecture Notes in Computer Science (LNCS) 2323, Springer-Verlag, p. 131-134.

[BnR.2] Kei Davis, Yannis Smaragdakis, and Joerg Striegnitz, "Multiparadigm Programming in Object-Oriented Languages", in *ECOOP 2002 workshop reader*, Lecture Notes in Computer Science (LNCS) 2548, Springer-Verlag, p. 154-159.

C.3. Invited Conference Papers

[CnR.1] Yannis Smaragdakis, Shan Shan Huang, and David Zook, "Program Generators and the Tools to Make Them", invited paper in the 2004 ACM symposium on *Partial Evaluation and Program Manipulation (PEPM'04)*.

C.4. Workshop Presentations with Proceedings (non-refereed)

[WnR.1] Yannis Smaragdakis, "Implementing Layered Designs with Mixin Layers", *European Conf. on Object-Oriented Programming (ECOOP '98) Doctoral Workshop*.

[WnR.2] Yannis Smaragdakis, "Reusable Object-Oriented Components", *Workshop on Institutionalizing Softw. Reuse* (WISR '99).

D. Edited Proceedings

[E.1] Kei Davis, Yannis Smaragdakis, and Joerg Striegnitz (eds.), *Multiparadigm Programming with Object-Oriented Languages (MPOOL)*, John Von Neumann Institute for Computing (NIC), 2001. ISBN 3-00-007968-8.

[E.2] Joerg Striegnitz, Kei Davis, and Yannis Smaragdakis (eds.), *Multiparadigm Programming with Object-Oriented Languages (MPOOL)*, John Von Neumann Institute for Computing (NIC), 2002. ISBN 3-00-009099-1.

[E.3] Frank Pfenning and Yannis Smaragdakis (eds.), *Generative Programming and Component Engineering*, proceedings of GPCE'03, Lecture Notes in Computer Science (LNCS) 2830, Springer-Verlag.
[62 submissions, 21 selected: **34%**]

E. Other

E.1. Software

[S/W.1] DiSTiL. A specialized programming language for data structure development, implemented on top of the Intentional Programming system at MS Research.

[S/W.2] Compressed Cache Simulator and the OLR Trace Reduction Utility. Publicly available tools for virtual memory simulations.

[S/W.3] JTS: The Jakarta Tool Suite. A set of pre-compiler/compiler tools for extending Java. Current version: 3.0 beta 4. Designers: Don Batory, Bernie Lofaso, Yannis Smaragdakis.

[S/W.4] FC++ v. 1.1: A library for functional programming in C++. Designers: Brian McNamara, Yannis Smaragdakis.

[S/W.5] The XR (Exact Reals) Library. Designers: Keith Briggs, Yannis Smaragdakis.

[S/W.6] J-Orchestra: An Automatic Partitioning System for Java Applications. Eli Tilevich, Yannis Smaragdakis.

[S/W.7] NRMI: Natural and Efficient Java Middleware. Eli Tilevich, Yannis Smaragdakis.

E.2. Non-Overlapping Technical Reports

[TR.1] Don Batory and Yannis Smaragdakis, "Another Look at Architectural Styles and ADAGE", UT-ADAGE-95-02 Tech. Report from the DSSA-ADAGE project.

[TR.2] Yannis Smaragdakis, "Trace Reduction for LRU-based Simulations", UTexas CS Tech. Report 98-25.

F. Research Proposals and Grants (Principal Investigator)

1. Language Tools for Exploratory Programming of Highly Interactive Distributed Applications
   Blair McIntyre and Yannis Smaragdakis.
   Raytheon Faculty Fellowship
   Amount awarded: $20,000 for one year, beginning September 2000.

2. J-Orchestra: an Automatic Distribution System for Java Applications
   Yannis Smaragdakis
   Yamacraw Foundation Grant
   Amount awarded: $80,000. July 2001.

3. Automatic Partitioning of Java Applications
   Yannis Smaragdakis and Ken Mackenzie
   Sun AEG (Academic Equipment Grant)
   Value of equipment awarded: $40,000. April 2002.

4. J-Orchestra: an Automatic Distribution System for Java Applications (continuation grant)

Yannis Smaragdakis
Yamacraw Foundation / Georgia Electronic Design Center
Amount awarded: $80,000. July 2002.

5. ITR: Application Partitioning without Programming
   Yannis Smaragdakis
   National Science Foundation
   Amount awarded: $300,000 for three years, beginning October 2002.

6. CAREER: Infrastructure for Software Generators and Components
   Yannis Smaragdakis
   National Science Foundation
   Amount awarded: $400,000 for five years, beginning August 2003.

7. J-Orchestra: an Automatic Distribution System for Java Applications (continuation grant)
   Yannis Smaragdakis
   Georgia Electronic Design Center
   Amount awarded: $35,500. November 2003.

8. Parallelism in a Logic Programming Language
   Yannis Smaragdakis
   Optimi Co.
   Amount awarded: ongoing contributions as unrestricted gifts, currently totaling ~$40,000, Jan.'05, Aug.'05.

G. Research Proposals and Grants (Contributor)

1. I/O Intensive Embedded Systems: the Infopipe Approach
   Calton Pu (PI), Karsten Schwan, Ling Liu, Jonathan Walpole (co-PIs), Mustaque Ahamad, Yannis Smaragdakis, Charles Consel (contributors).
   DARPA grant (BAA 00-23: Program Composition for Embedded Systems)
   Amount awarded: ~$2,000,000 over four years, beginning September 2000.

H. Research Honors and Awards

Outstanding Paper Award in the USENIX Annual Technical Conference, for " The Case for Compressed Caching in Virtual Memory Systems" [C.8], June 1999.

NSF CAREER award, January 2003.

2004 College of Computing Outstanding Junior Faculty Research Award.

Best Paper Award (of 75 submitted, 25 accepted) in the Generative Programming and Component Engineering conference (GPCE'04) for "Generating AspectJ Programs with Meta-AspectJ" [C.18], October 2004.

Best Paper Award (1 of 2 given, 23 papers accepted, including Industrial Reports, of a total of ~100 submissions) in the International Symposium on Software Testing and Analysis (ISSTA 2006) for " DSD-Crasher: A Hybrid Analysis Tool for Bug Finding" [C.27], July 2006.

III. SERVICE

A. Professional Activities

A.1. Memberships and Activities in Professional Societies

Senior Member, IEEE

Member, IFIP Working Group 2.11 (Domain-Specific Program Generation), by invitation

Member of the ACM

A.2. Conference Reviewing Activities

External reviewer *ICSR*'5 (1998), *SIGMETRICS*'99, *IPDPS* 2001, *ISCA* 2004, *ECOOP* 2004, *ICSE*'06.

A.3. Other Committees

NSF Proposal Panelist (Spring 2002, 2003).

B. On-Campus Committees (selected)

College of Computing, Graduate Committee, area coordinator for the Programming Languages and Compilers area, Sep. 2000-Aug.2005.

College of Computing, Graduate Committee, area coordinator for the Software Engineering area, Sep. 2001-Sep. 2002.

College of Computing, Dean Search Committee, 2002.

College of Computing, Undergraduate Curriculum Committee, 2005-

IV. NATIONAL & INTERNATIONAL PROFESSIONAL RECOGNITION

A. Honors and Awards

National Scholarship Foundation (IKY), Greece, annual scholarship for highest annual GPA in CS Department, University of Crete, 1990, 1991, 1992 (3 separate annual awards).

Graduation award (Drettakis fellowship) for highest GPA in graduating class of CS Department, U. Crete, 1993.

MCD Fellowship, University of Texas at Austin, 1993 to 1995.

B. Conference Committee service

Program committee member, *ECOOP '99 Doctoral Workshop.*

Organizer, *Multiparadigm Programming in OO Languages Workshop* in ECOOP 2001.

Program Chair, *C++ Template Programming Workshop*, 2001.

Program committee member, *Generative Programming Workshop* at OOPSLA 2001.

Program committee member, *Generative Programming and Component Engineering (GPCE) conference*, 2002.

Organizer, *Multiparadigm Programming in OO Languages Workshop* in ECOOP 2002.

Program committee member, *Partial Evaluation and Semantics-Based Program Manipulation (PEPM)*, 2003.

Program co-Chair (with Frank Pfenning of CMU), *Generative Programming and Component Engineering (GPCE) conference*, 2003. [62 submissions, 21 accepted: **34%**]

Steering committee member, *Generative Programming and Component Engineering (GPCE)*, 2003-present.

Program committee member, workshop on *Language Descriptions, Tools and Applications (LDTA)*, 2004.

Program committee member, *Object-Oriented Programming track (OOPS)* at SAC'05.

Program committee member, *Generative Programming and Component Engineering (GPCE) conference*, 2005.

Program committee member, *2nd Meta O'Caml Workshop*, 2005.

Program committee member, *Aspect-Oriented Software Development conference (AOSD)*, 2006.

Program committee member, *Object-Oriented Programming track (OOPS)* at SAC'06.

Program committee member, workshop on *Language Descriptions, Tools and Applications (LDTA)*, 2006.

Program committee member, *ICSE'06 Emerging Results track.*

Program committee member, *SIGSOFT Foundations of Software Engineering (FSE)*, 2006.

Program committee member, *International Symposium on Memory Management (ISMM)*, 2006.

Program committee member, *Compiler Construction (CC)*, 2007.

C. Patents

(Applied for by Microsoft.) "Extensible Compiler Architecture." (With co-inventors Paul Kwiatkowski, David Rich-

ter, William Aitken, Brian Dickens, Charles Simonyi, M. Paramasivam, and Steve Eisner.) US Patent and Trademark Office application filed 5/28/99.

D. Editorial and Reviewer Work for Technical Journals

Reviewed articles for
ACM Transactions on Software Engineering and Methodologies (TOSEM)
ACM Transactions on Programming Languages and Systems (TOPLAS)
Journal of Functional Programming (Cambridge University Press)
IEEE Transactions on Computers
IEEE Transactions on Software Engineering
IEEE Transactions on Parallel and Distributed Systems
Software Practice and Experience (John Wiley and Sons)
Higher-Order and Symbolic Computation (Kluwer Academic Publishers)
Performance Evaluation (Elsevier)
Journal of Parallel and Distributed Computing (Elsevier)
International Journal of Parallel and Distributed Systems and Networks

V. OTHER CONTRIBUTIONS

A. Invited Presentations

A large number (20-30) of invited presentations at several institutions including:
Brown University, Dagstuhl seminar center, Microsoft Research, New York University, Ohio State University, Oxford University, University of California/Berkeley, University of California/Davis, University of California/Santa Barbara, University of Chicago, University of Massachusetts/Amherst.