

MATHIAS GUENTER RICKEN

6100 Main Street MS-132
Houston, TX 77005-1892

mgricken@rice.edu
(713) 835-2446

EDUCATION

Ph.D. in Computer Science expected 2010
Rice University, Houston, TX. GGPA 3.98/4.00
Research Area: Programming Languages. Advisor: Dr. Robert Cartwright

M.S. in Computer Science October 2007
Rice University, Houston, TX.
Thesis: "A Framework for Testing Concurrent Programs"
Republished 2009 by VDM Verlag (ISBN 978-3-639-15074-2)

B.S. in Computer Science May 2004, magna cum laude
Rice University, Houston, TX. GPA 3.89/4.00

Abitur 1999. Average 1.0/1.0. Ranked 4th in the state of Bremen
Hermann Boese Gymnasium, Bremen, Germany.

Computer skills: C, C++, C#, Java, Promela/SPIN, Assembly, Scheme, OCaml
Languages spoken fluently: English, German

EXPERIENCE

Research Assistant, Programming Languages Team, May 2004 –
Rice University, Houston, TX
Investigated and implemented testing tools for concurrent Java programs.
Implemented a multi-stage programming extension of Java called Mint.
Extended and maintained DrJava, an open-source cross-platform Java development
environment, and made it suitable for use on large software projects.
Designed and developed course material for computer science courses in object-
oriented programming and concurrent programming.

R & D Intern, Real-Time and Embedded Systems, May 2003 – August 2003
National Instruments, Austin, TX
Modified the LabVIEW Embedded environment to generate multi-threaded C source
code for different operating systems and hardware platforms.

Software Developer, Programming Languages Team, August 2002 – May 2003
Rice University, Houston, TX
Developed the programming environment DrC#.

Research Assistant, Computer Graphics, May 2002 – December 2002
Rice University, Houston, TX
Independently researched and implemented texture and geometry synthesis
algorithms in computer graphics; developed applications for a haptic input device.

PUBLICATIONS

Mint: Java Multi-stage Programming Using Weak Separability

Westbrook, E, M. Ricken, J. Inoue, Y. Yao, T. Abdelatif, and W. Taha
To appear in Proceedings of the 2010 ACM SIGPLAN Conference on Programming Language Design and Implementation, ACM 2010

Test-First Java Concurrency for the Classroom

Ricken, M., and R. Cartwright
To appear in Proceedings of the Forty-First Technical Symposium on Computer Science Education. ACM, 2010

ConcJUnit: Unit Testing for Concurrent Programs

Ricken, M., and R. Cartwright
Proceedings of the 7th International Conference on the Principles and Practice of Programming in Java (PPPJ 2009)
ACM International Conference Proceeding Series, ACM, 2009

A Framework for Testing Concurrent Programs

M.S. Thesis, October 2007
Republished 2009 by VDM Verlag (ISBN 978-3-639-15074-2)

Nifty Assignment: Temperature Calculator – Programming for Change

Nguyen, D., and M. Ricken
Proceedings of the Fifteenth OOPSLA Educators' Symposium. ACM, 2006

Design Patterns for Parsing

Nguyen, D., M. Ricken, and S. Wong
Proceedings of the Thirty-Sixth SIGCSE Technical Symposium on Computer Science Education. ACM, 2005

Nifty Assignment: Marine Biology Simulation

Cheng, E., D. Nguyen, M. Ricken, and S. Wong
Proceedings of the Thirteenth OOPSLA Educators' Symposium. ACM, 2004

Nifty Assignment: Abstract Factories and the Shape Calculator

Cheng, E., D. Nguyen, M. Ricken, and S. Wong
Proceedings of the Thirteenth OOPSLA Educators' Symposium. ACM, 2004

Design Patterns for Marine Biology Simulation

Nguyen, D., M. Ricken, and S. Wong
Proceedings of the Thirty-Fifth SIGCSE Technical Symposium on Computer Science Education. ACM, 2004

PRESENTATIONS

Object-Oriented Design Festival Workshop.

Cheng, E., D. Nguyen, M. Ricken, and S. Wong
Thirty-Seventh SIGCSE Technical Symposium on Computer Science Education. ACM, 2006

TEACHING

Mentor, Independent Study, Fall 2009

Rice University, Houston, TX

Will provide advice and supervision to undergraduate computer science students for an independent studies concerned with (1) extending the DrJava development environment, and (2) multi-stage programming.

Instructor, Production Programming, Spring 2009

Teaching Assistant, Production Programming, 2 semesters

Rice University, Houston, TX

Held all class lectures, designed the curriculum, chose projects for student groups, and assigned final grades. As teaching assistant, maintained website and solutions, helped students with Ant and Subversion, administered SourceForge accounts.

Instructor, Principles of Object-Oriented Programming II, Fall 2008

Rice University, Houston, TX

Held all class lectures and laboratory tutorials, modified and designed the curriculum, supervised teaching assistants, graded exams and homework assignments, and assigned final grades.

Teaching Assistant, Programming Languages, 3 semesters

Rice University, Houston, TX

Held several class lectures, consulted undergraduate and graduate students, and graded their exams and homework assignments. Assisted in conversion of lectures and assignments to OCaml. Maintained website and solutions, improved grading scripts.

Teaching Assistant, Intermediate Programming, 9 semesters

Rice University, Houston, TX

Held several class lectures. Presented weekly tutorials on Unix, Java, design patterns, and tools; consulted college students and graded their exams and homework assignments. Maintained website and grade database.

HONORS

Doctoral Fellowship (2004 – 2010)

Dean's Teaching Assistant (2008 – 2009)

Sid Richardson Fellow

Rice Undergraduate Scholar

Tau Beta Pi Engineering Honor Society (Officer 2003 – 2004)

Louis J. Walsh Merit Scholarship in Engineering 2001 – 2004

Rice University President's Honor Roll Fall 2000, 2002, 2003; Spring 2002, 2003

MEMBERSHIP

Association for Computing Machinery (ACM) Student Member

Special Interest Group on Programming Languages (SIGPLAN) Student Member

Special Interest Group on Computer Science Education (SIGCSE) Student Member

ACTIVITIES

Rice Ambassador, Corps of Special Aides to the Governor of Texas (2001 – 2004)

Rice Computer Science Club (Vice President, 2003 – 2004)

Rice Engineering Society Council (Secretary/Treasurer, 2003 – 2004)

Rice Wine Society (Secretary/Treasurer, 2004 – 2006)