Rean Griffith 362 Riverside Drive, Apt 6C2, New York, NY 10025

Department of Computer Science	Office:	608 CEPSR
Columbia University	Office Phone:	212.939.7184
1214 Amsterdam Avenue, MC: 0401	Office Fax:	212.939.7084
New York, NY 10027	Home Phone:	212.853.8287
	Cellphone:	917.405.9071
	Email:	rg2023@columbia.edu
	URL: http://www.cs.columbia.edu/~rg2023	

Research Interests

Distributed systems, autonomic/self-managing systems, adaptive systems, fault-injection tools, runtime environments and virtual machines. My current research focus is on the reliability, availability and serviceability properties of software systems.

Education

Columbia University, FU Foundation School of Engineering and Applied Science, New York, NY
Ph.D. Candidate, Computer Science – Expected August 2008
Advisor: Prof. Gail Kaiser
Thesis: The 7U Evaluation Method: Evaluating Software Systems via Fault-Injection and Reliability, Availability and Serviceability (RAS) Metrics and Models

Columbia University, FU Foundation School of Engineering and Applied Science, New York, NY
M.Phil. Computer Science (GPA 4.0/4.0) – December 2004
M.Sc. Computer Science (GPA 3.728/4.0) – December 2002

University of the West Indies, Cavehill Campus, St. Michael, Barbados
B.Sc. Computer Science and Management (Hons) (GPA 3.75/4.0) – May 2000

Honors and Awards

IBM Ph.D. Fellowship 2006/2007 Academic Year
NSBE Torch Bearer 2003 – Present

Research Experience

Stacksafe Inc 8245 Boone Blvd Suite 700 Vienna VA 22182 (June 15th 2007 – Sept 15th 2007)
Intern (*Manager: Dr. Carolyn Turbyfill*)
Project: Reliability, Availability and Serviceability Evaluations of Web-Application Stacks

IBM Almaden Research Center 650 Harry Road San Jose CA (May 15th 2006 – Aug 11th 2006)
Research Intern in the User Group (Manager: Steve Welch D.E.)
Project: Assured Execution Environment (AxE) – System Update and Intranet Deployment.

IBM Almaden Research Center 650 Harry Road San Jose CA (May 23rd 2005 – Sept 9th 2005)
Research Intern in the User Group (Manager: Steve Welch D.E.)
Project: Assured Execution Environment (AxE) – Initial Prototype (WinXP SP2, Mac OS X)

IBM Almaden Research Center 650 Harry Road San Jose CA (June 1st 2004 – August 20th 2004)
Research Intern in the User Group (Manager: Steve Welch)
Project: System Restore GUI for Rapid Restore Ultra (part of IBM ThinkVantage Technologies). Designed implemented and tested a GUI, using QT3.x.x that guides a user through searching for local or remote backup images and restoring their machine using those backup images. Identified and resolved bugs in the original restore process logic.

Project: Network connectivity detection and wireless network detection on Linux. Designed, implemented and tested a kernel module that determines the wired and wireless network interfaces present on a machine and provides an indication of whether these interfaces are actually connected

to the network. Designed, implemented and tested a wireless network scanning and detection tool for Linux.

Project: Stability testing of the Captive NTFS driver for Linux. Conducted experiments to determine the current limitations of Captive NTFS 1.1.5 with respect to maximum file size supported, throughput and stability of the driver

Work Experience

FirstCaribbean International Bank St. Michael, Barbados (August 23rd 2007 – Present)
Independent Consultant (working alongside Icon Studios Barbados)
Designed, implemented and tested the online assessment web-application FirstCaribbean International Bank University, which supports ~3000 staff members in 16 Caribbean territories using ASP. NET 2.0, C# and PostgresSQL 8.2.4. Via FirstCaribbean International Bank University, administrators can upload assessments and answer keys and assign users to one or more testing groups. Non-administrative users can log in and complete the assessments associated with their testing group(s) and get their results upon completion of the assessment.

AquaPisce Restaurant (May 2003 – January 6th 2004)
Independent Consultant (working alongside graphics designers Icon Studios Barbados)
Project: Customer feedback data collection. Designed and implemented and tested a pocket pc application to deliver custom questionnaires using the .Net Compact Framework 1.0. The application runs on Pocket PC 2003/2.

The Securities Commission of Barbados (SCB) (July 21 2003 – August 21 2003)
Independent Consultant (working alongside graphics designers Icon Studios Barbados)
Project: SCB E-filing Intranet. Designed and implemented a database (SQL Server 2000) to store the filing of regulatory forms. Designed, implemented and tested an intranet site to allow the employees of the SCB to proceed with their back filing tasks (from 2001) using ASP. NET 1.1 web forms. Provided facilities to dynamically generate PDF documents based on the stored filing data.

Microsoft Corporation Redmond WA USA (June 04 2002 – Aug 23 2002)
Software Design Engineer in Test in the.NET Framework (.NET Client QA Team)
Project: ActiveX Sourcing in MFC – Hosting WinForms controls in other containers. Developed code to place WinForms controls in an MFC Container. Developed code for manual tests of the feature. Developed code to automate tests of the feature.

Project: Testing WinForms Add-ins hosted in Visual Studio .NET and Office XP Applications. Worked with Developers and Program Managers to develop a test plan for the area. Developed manual and automated tests to implement the test plan. Developed code to automate testing Add-ins in VS .NET and Office XP.

Project: Develop and implement test plan for the SplitContainer control. Reviewed the Program Manager Specification for the SplitContainer. Worked with Developers and Program Managers to develop a test plan for the control. Wrote test plan including test breakouts and E2E (end-2-end) scenarios.

Barbados Stock Exchange (BSE), St. Michael, Barbados, W.I. (August 2001 – January 2002)
Independent Consultant
Project: BSE Analytical Report Generation Tool Phase 1. Designed the database to be used for generation of securities trading and other analytical reports. Automated the importing of trading data from Excel Spreadsheets into the database using a combination of Windows NT/Win2000 services and Microsoft Office Automation.

Caribbean Software Technologies, St. Michael, Barbados, W.I. (June 2000 – July 2001)
A division of American Computer Technologies, Maitland, FL www.actconsulting.com
Web Programmer
Project: Tradepoint / Visagent Online Wholesale Exchange Project. Assisted in the implementation of database the components comprising the data tier of the web application using Visual C++ 6.0, COM, OLEDB, MTS.

Teaching Experience
Teaching Assistant, Database Systems (COMS 4111) – Spring 2004
Teaching Assistant, Advanced Software Engineering (COMS 4156) – Spring 2005
Masters Research Project Supervisor: Ritika Virmani-Khanna – Fall 2007 to Spring 2007

Professional Activities
Reviewer IEEE Conference on Autonomic Computing (ICAC 2008)
Reviewer IEEE Conference on Autonomic Computing (ICAC 2007)
Reviewer IEEE International Conference on Distributed Computing Systems (ICDCS 2005)
Reviewer IEEE Internet Computing (IEEE Internet Computing 2003)

Professional Societies
National Society of Black Engineers (NSBE) – Student membership (2003 – present)
Institute of Electrical and Electronics Engineers (IEEE) – Student membership (2006 – present)
Association for Computing Machinery (ACM) – Student membership (2006 – present)

Publications
1. The Role of Reliability, Availability and Serviceability (RAS) Models in the Design and Evaluation of Self-Healing Systems, Rean Griffith, Ritika Virmani, Gail Kaiser, International Conference on Self-Organization and Autonomous Systems (SOAS) in Computing and Communications, September 2007
2. RAS-Models: A Building Block for Self-Healing Benchmarks, Rean Griffith, Ritika Virmani, Gail Kaiser, International Workshop on Performability Modeling of Computer and Communication Systems (PMCCS-8), September 2007
3. **Thesis proposal**: Evaluating Software Systems via Fault-Injection and Reliability, Availability and Serviceability (RAS) Metrics and Models, February 2007
4. A Runtime Adaptation Framework for Native C and Bytecode Applications, Rean Griffith, Gail Kaiser, 3rd IEEE International Conference on Autonomic Computing, June 2006
5. Dynamic Adaptation of Temporal Event Correlatation for QoS Management in Distributed Systems, Rean Griffith, Joseph L. Hellerstein, Gail Kaiser, Yixin Diao, 14th International Workshop on Quality of Service (IWQoS 2006), June 2006
6. Dynamic Adaptation of Temporal Event Correlation Rules, Rean Griffith, Gail Kaiser, Joseph L. Hellerstein, Yixin Diao, First International Workshop on Feedback Control Implementation and Design (FeBID), March 2006
7. Effecting Runtime Reconfiguration in Managed Execution Environments, Rean Griffith, Giuseppe Valetto, Gail Kaiser, Autonomic Computing: Concepts, Infrastructure, and Applications, CRC Press, January 2006
8. A Control Theory Foundation for Self-Managing Systems, Yixin Diao, Joseph Hellerstein, Sujay Parekh, Rean Griffith, Gail Kaiser, Dan Phung, IEEE Journal on Selected Areas in Communications, August 2005
9. Manipulating Managed Execution Runtimes to Support Self-Healing Systems, Rean Griffith, Gail Kaiser, ICSE 2005 Workshop - Design and Evolution of Autonomic Application Software, May 2005
10. Self-Managing Systems: A Control-Theory Foundation, Yixin Diao, Joseph Hellerstein, Sujay Parekh, Rean Griffith, Gail Kaiser, Dan Phung, IEEE ECBS Workshop on Engineering of Autonomic Systems (EASe 2005), April 2005

References available on request.