Saket Rungta

Objective

Apply or create technology for *innovative* business solutions

Education

University of Oxford United Kingdom
Master of Science in Software Engineering, anticipated 2008

Sponsored by IBM United Kingdom Labs

Selected coursework Discrete Mathematics · Performance Modelling · Functional Programming in Haskell · Communicating Sequential Processes · Distributed Objects · Design Patterns

The University of Manchester United Kingdom
Bachelor of Engineering in Software Engineering, 2002 1st class

First position & Prize of the Institute for the best student on course in 1999, 2000, 2002
Industrial Experience, IBM United Kingdom Labs, 2001

Selected coursework Formal Specification · Software Analysis and Design · Object Orientation · Databases · Data Structures · Human Computer Interaction · Neural Networks · Systems Architecture · Networking · Concurrency · Real-time Systems · Project Management

Work Experience

IBM United Kingdom Laboratories, Hursley, U.K.
Software Engineer · WebSphere MQ & Enterprise Service Bus Development (Since Jan 2005)

- Currently, designing and developing a framework for IBM's Java Message Service (JMS) clients and applying the framework to produce a MQ client to enable Java applications' connectivity to MQ. Leading design and development of the messages component. MQ is IBM's flagship Message Oriented Middleware.
- Developed Message Service Client for .NET in C# to enable .NET applications' connectivity to IBM messaging middleware. Led development of the MQ sub-project.
- IBM Lab Advocate for National Australia Group Europe, a multi-billion USD financial services group. Focal point of contact into the WebSphere Platform development team for resolving key technical issues, directly or indirectly. Facilitated the design of an Internet banking infrastructure involving five IBM middleware products to ensure there is no single point of failure.
- (MQ and Brokers are a USD 600+ million per year business for IBM)

Performance Analyst · Java Technology Centre (Dec 2004 - Jul 2002 · 30 months)

- Led Garbage Collection (GC) performance efforts for IBM J9 Java Virtual Machines. The efforts resulted in an improvement of 4 times in the pause times for one GC policy. Led the technical recommendation for the default GC policy for next generation IBM Java Virtual Machines.
- Co-lead performance work for decimal floating-point arithmetic in Java (BigDecimal) that resulted in a 10% improvement of a key enterprise Java benchmark and helped to maintain IBM's competitive performance leadership. The work is part of a significant architectural shift in IBM hardware.
- Conceived and implemented an innovative results reporting mechanism for multi-site Java performance team.

Industrial Trainee Student · Java Technology Centre (Jul 2001 - Aug 2000 · 12 months)

- Designed and executed a large experiment exploring the relationship between response time and new memory management capabilities of the zOS Persistent Reusable Java Virtual Machine, for traditional transaction processing environments like Customer Information Control System (CICS).
- Helped to quantify the benefits of this new technology, in reducing transaction response time and memory footprint.
- (CICS is a USD 1 billion per year business for IBM)

Patents

- Non-programmatic access to enterprise messaging administration · EU application filed · Mar 2008.
- Use of template messages to optimize a software messaging system · US application filed · Nov 2007.
- Systems and methods for non-programmatic access to data and to data transfer functions · EU application filed · Aug 2007.
- Method and system for dynamically managing storage of data objects generated during execution of a computer program · GB and US applications filed · Apr 2006, Jun 2006.
- Arrangement and method for Garbage Collection in a computer system · GB and US applications filed · Jun 2005, Apr 2006.

Publications

- Special issue of International Journal of Simulation: Systems, Science & Technology 2005 · Co-author for an extended paper on 'The Compile- and Run-time Performance Considerations of Implementing Cross-Cutting Concerns as Aspects' · Volume 6, Numbers 3-4 · Feb, 2005.

- Performance Engineering 'Best Practices' Topical Conference V · Co-author for 'Virtual machine and JIT compiler optimizations for higher throughput of WebSphere applications' · IBM internal conference, sponsored by the IBM Academy of Technology · Almaden Research Laboratory, USA · Jun 21-23, 2004 (poster session).
- Aspect-Oriented Software Development Conference · Co-author for AspectJ performance presentation · IBM internal conference, sponsored by the IBM Academy of Technology · T. J. Watson Research Center, USA · Sep 3-4, 2003 (presentation).

Invited Presentations

- What does it take to be an IT Professional? · To first year students, School of Informatics, The University of Manchester · Feb 24, 2004.

Selected Academic Projects

- B.Eng. project · Design and development of a W3C XForms processor (JavaScript code generation using XSLT) · The University of Manchester · Industrial collaboration with B2B Net (U.K.) Limited, Manchester · 2002.
- Embedded systems team project · Design and implementation of an autonomous Infra-red vacuum cleaner · The University of Manchester · 2000.

Symposiums, Conferences or Workshops

- Techconnect poster session, '.NET entry/exit into an IBM Enterprise Service Bus' · IBM Software Group Architecture Board, IBM Hursley · July 19, 2006.
- Garbage Collection and Memory Management summer school · University of Kent at Canterbury · July 20-21, 2004.
- Techconnect Fair, an event for early-tenure technical IBMers, 'Power of Simplicity' poster · IBM Hursley · May 27, 2004.
- Memory Management Network Workshop · University College London · Dec 2, 2003.

Honours and Activities

- IBM First Plateau Invention Achievement Award · For successful four patent applications · Dec 2007.
- Profiled at IBM Hursley Intranet website, May 2006 · At ibm.com/uk recruitment website, 2004, 2005 · At University of Manchester website and prospectus, 2003-06.
- IBM First Patent Application Invention Achievement Award · Dec 2005.
- Two IBM Bravo Awards for a paper publication and a paper presentation respectively · Jun 2005 · Oct 2004.
- IBM University relations, e.g. graduate recruitment presentations at University of Cambridge and University of Warwick · 2004.
- City and Guilds Licentiateship (LCGI) in Information Technology · 2002.
- Student representative for the Computation Department, Board of Undergraduate Studies and Information Systems Committee · The University of Manchester · 2001.

Skills

- **Communication skills** Presented a paper at a workshop and posters at various events (verbal) and actively participated in publication opportunities (written).
- **Problem solving skills** Pro-actively engaged with a key client to facilitate design considerations and technical issues (business) and contributed to IBM's Intellectual Property portfolio in the area of dynamic memory management (technical).
- **Leadership skills** Led IBM's Garbage Collection performance efforts and designed an innovative results reporting mechanism. Conceived and leading a group blog effort.
- **Platform skills** UNIX, Windows, zOS (basic) · Experience with multiprocessor systems and Virtualization.
- **Development skills** Java, C# and .NET, Perl, C, C++, Haskell (basic), Assembly (basic) · JMS, WebSphere Application Server, WebSphere MQ · Familiarity with Threads, Sockets, Regular Expressions and Design Patterns.
- **Performance skills** Profiling, analysis, statistical measurements and competitive performance evaluation. Experience with popular sampler tools and with few code instrumentation tools.
- **Misc. skills** UML, CSP (basic), Z (basic) · Unit testing frameworks · HTML, XML technologies, File and web servers, Security principles, Data compression, Photo editing, PDF tools, LaTeX

Languages

- English (fluent) and Hindi (native)

References

- Available on request

2008.03.12