

CURRICULUM VITAE
Iqbal Mohomed

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Research Interests

Systems, Mobile Devices and Ubiquitous Computing

Education

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| University of Toronto Ph.D. candidate, Computer Science. Course Average: A Advisor: Eyal de Lara Thesis: <i>Interactive Content Adaptation</i> | 5/2004 – present |
| University of Toronto M.Sc. in Computer Science. Course Average: A Advisor: Eyal de Lara Second Reader: Ravin Balakrishnan Thesis: <i>Community-Driven Adaptation</i> | 9/2001 – 5/2004 |
| Northwestern University Visiting Student (MATH 304: Game Theory). CGPA: 4.0/4.0 | 6/2001 – 8/2001 |
| Illinois Institute of Technology Graduate Certificate in Intelligent Information Systems. CGPA: 4.0/4.0 | 1/2001 – 8/2001 |
| University of Toronto Hon.B.Sc. Graduated with High Distinction. CGPA: 3.94/4.0 Specialist in Software Engineering; Major in Economics; Minor in Mathematics | 9/1995 – 6/2000 |

Teaching Experience

Course Instructor, Department of Computer Science at the University of Toronto

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| • CSC 324S, Programming Languages | 1/2005 – 4/2005 |
| • CSC 324S, Programming Languages | 5/2005 – 8/2005 |
| • CSC 209S, Software Tools and Systems Programming | 5/2004 – 8/2004 |
| • CSC 340S, Information Systems Analysis and Design | 1/2004 – 4/2004 |
| • CSC 354S, Discrete-Event Simulation and Modeling | 1/2004 – 4/2004 |
| • CSC 181F, Introduction to Computer Programming | 9/2002 – 12/2002 |

Teaching Assistant, Department of Computer Science at the University of Toronto

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| • CSC 318F, Design of Interactive Computational Media | 9/2004 – 12/2004 |
| • CSC 408F, Software Engineering | 9/2003 – 12/2003 |
| • Computing Insights | 7/2002 |
| • CSC 458H, Computer Networks | 5/2002 – 8/2002 |
| • CSC 468F, Operating Systems | 9/2001 – 12/2001 |
| • CSC 378F, Data Structures and Algorithm Analysis | 9/2001 – 12/2001 |

Research

Full Conference Papers (Rigorously Peer Reviewed):

- [C4] *Correlation-Based Content Adaptation For Mobile Web Browsing.*
Iqbal Mohomed, Adin Scannell, Nilton Bila, Jin Zhang and Eyal de Lara
Eighth ACM/IFIP/USENIX International Middleware Conference (**Middleware 2007**),
November 2007. [20% acceptance rate, 20 pages]
- [C3] *PageTailor: Reusable End-User Customization for the Mobile Web.*
Nilton Bila, Troy Ronda, Iqbal Mohomed, Khai Truong, Eyal de Lara
Fifth International Conference on Mobile Systems Applications and Services (**MobiSys 2007**),
June 2007. [21% acceptance rate, 14 pages]
- [C2] *Context-Aware Interactive Content Adaptation.*
Iqbal Mohomed, Jim Chengming Cai, Sina Chavoshi and Eyal de Lara
Fourth International Conference on Mobile Systems Applications and Services (**MobiSys 2006**),
June 2006. [16% acceptance rate, 14 pages]
- [C1] *Usage-Aware Interactive Content Adaptation for Mobile Devices.*
Iqbal Mohomed, Jim Chengming Cai and Eyal de Lara
First European Conference on Computer Systems (**EuroSys 2006**),
April 2006. [20% acceptance rate, 14 pages]

Other Rigorously Peer Reviewed Publications:

- [R2] *HARMONI: Context-aware Filtering of Sensor Data for Continuous Remote Health Monitoring.*
Iqbal Mohomed, Archan Misra, Maria Ebling and William Jerome
Sixth Annual IEEE International Conference on Pervasive Computing and Communications (**Percom 2008**),
March 2008. [Short conference paper presented as poster, 22% acceptance rate, 4 pages]
- [R1] *Community-Driven Adaptation: Automatic Content Adaptation in Pervasive Environments.*
Iqbal Mohomed, Alvin Chin, Jim Chengming Cai and Eyal de Lara
Sixth IEEE Workshop on Mobile Computing Systems and Applications (**WMCSA 2004**),
December 2004. [Highly selective and independently held workshop, 25% acceptance rate, 10 pages]

Posters, Demonstrations and Workshops without proceedings:

- [O6] *HARMONI: A Middleware for Smart Long-term Continuous Remote Health Monitoring (Demo).*
Iqbal Mohomed, Maria Ebling, William Jerome, Archan Misra
First International Workshop on Systems and Networking Support for Healthcare and Assisted
Living Environments (**HealthNets 2007**), June 2007.
- [O5] *Long-term Continuous Remote Health Monitoring Using the HARMONI Middleware (Demo).*
Iqbal Mohomed, Maria Ebling, William Jerome, Archan Misra
Fifth International Conference on Pervasive Computing and Communications (**PerCom 2007**),
March 2007.
- [O4] *Chameleon: A URICA prototype for Image Fidelity Adaptation (Demo).*
Iqbal Mohomed, Jin Zhang, Sina Chavoshi, Eyal de Lara
IEEE Workshop on Mobile Computing Systems and Applications (**HotMobile 2007**),
February 2007.
- [O3] *Fine-Grain Adaptation Using Context Information (Doctoral Consortium/Poster).*
Iqbal Mohomed
IEEE Workshop on Mobile Computing Systems and Applications (**HotMobile 2007**),
February 2007.

- [O2] *HARMONI: Motivation for a Health-oriented Adaptive Remote Monitoring Middleware.*
Iqbal Mohomed, Maria R. Ebling, William Jerome and Archan Misra
 Fourth International Workshop on Ubiquitous Computing for Pervasive Healthcare Applications (**UbiHealth 2006**),
 September 2006.
- [O1] *Community-Driven Adaptation (Poster).*
Iqbal Mohomed, Alvin Chin, Jim Chengming Cai and Eyal de Lara
 Second International Conference on Mobile Systems, Applications, and Services (**MobiSys 2004**),
 June 2004.

Invited Talks and Demonstrations

- [T3] *Continuous Remote Health Monitoring Using the HARMONI Middleware (Invited Demo).*
 Fifth International Conference on Pervasive Computing (**Pervasive 2007**),
 May 2007.
- [T2] *Usage-aware Interactive Content Adaptation (Invited Talk).*
 IBM T.J Watson Research Center, Hawthorne NY,
 August 2006.
- [T1] *Community-Driven Adaptation (Invited speaker and panelist).*
 Workshop on Content and Application Customization for Pervasive Computing at CASCON 2004,
 October 2004.

Non-refereed Publications

- [NR1] *Community-Driven Adaptation.*
 Masters Thesis, University of Toronto.
 April 2004.

Patents

- [P2] *Method for Remote Correlation on Servers and Localized Adaptation of Client Behavior (ReCoLA).*
 Maria R. Ebling, William Jerome, Archan Misra and Iqbal Mohomed, IBM Research, Patent Filed.
- [P1] *Methods and Apparatus for Adapting Compression Techniques Over Data Based on External Context.*
 Maria R. Ebling, William Jerome, Archan Misra and Iqbal Mohomed, IBM Research, Patent Filed.

Service

- Student Volunteers Co-chair, Pervasive 2007
- Webmaster, IEEE Computer Society – Technical Committee on Computer Communications (TCCC), 2006-2008
- Reviewer for WMCSA 2004, ICDE 2005, WWW 2006, 4th MinEMA Workshop, Ubicomp 2006, Mobisys 2006 and the PMC Journal

Academic Awards

- Ontario Graduate Scholarship 2007
- University of Toronto Fellowship 2001 – 2007
- Wolfond Fellowship 2004
- Woodsworth College Graduation Book Prize 2000
- William James Dunlop Memorial Scholarship 1999
- Woodsworth College Students Association Scholarship 1998
- University of Toronto Dean's List 1997, 1998, 2000

Professional Experience

IBM T. J. Watson Research Center (Hawthorne), Research Intern

5/2006 – 9/2006 and 5/2007-9/2007

Managers: Maria Ebling (2006), Min Wang (2007)
Host: Archan Misra

Developed the HARMONI middleware system for mobile devices which collects health data (such as heart rate) from sensors via Bluetooth and relays it to backend servers. HARMONI performs context-aware filtering that is personalized for individual users, provides multiple compression algorithms and includes a light-weight event engine to support disconnected operation.

CaseWare International, Intermediate Software Engineer

11/2002 – 12/2003

Developed user interface components for a Windows-based accounting/auditing application suite. The widgets could be used to display, update, insert and delete entries from an underlying database, and were used in three CaseWare products: Working Papers, CaseView and Time. Worked with FoxPro, SQL Server 2000, COM, OLEDB and Visual C++/MFC.

Motorola, Software Engineer

9/2000 – 9/2001

Developed real-time embedded software for the GLI2 and GLIQ hardware boards, which provide routing and state management for all devices in CDMA Base Transceiver Stations. Wrote design documents and developed code for a paging subsystem and a flow control agent for call traces. The software was in C and ran on the VX-works and Vertex real-time operating systems.

Pervasive Software, Software Engineer

5/2000 – 6/2000

Ported expression evaluator for a proprietary high-level language from C++ to Java. Wrote feature and design specifications. Worked with Java Servlets and Enterprise Java Beans.

Nortel Networks, Software Designer (Internship)

5/1998 – 9/1999

Principal developer of the Fax subsystem for the Meridian Interactive Voice Response (IVR) 5.0 release. The software was in C, and interfaced with Dialogic Fax/Telephony hardware. Wrote feature and design specifications. Integrated hardware and software from various third-party vendors. Engineered and documented the installation process for the IVR.

Extracurricular Activities

Department of Computer Science at the University of Toronto

- President of the Computer Science Graduate Student Benevolent Society (CSGSBS), which is the official body representing computer science graduate students to the department, for 2005 – 2007
- Graduate Visit Day Coordinator for 2006, 2007
- Student Representative on the Environment and Equity Committee for 2003 – 2004
- Student Representative on the Time-to-Competition Committee for 2004

Other

- Campus Ambassador for the Canadian Undergraduate Technology Conference (CUTC) 2005, 2006
- Elected member of the Club Committee for the Hart House Archery Club for 2004 – 2006

References

Dr. Eyal de Lara
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