

Sachi Arafat

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DOB: 12th August 1982

- CURRENT POSITION** **Royal Academy of Engineering/EPSRC Research Fellow** in the Foundations of Information Retrieval, Department of Computer Science, University of Glasgow
- RESEARCH INTERESTS** Formal methods, foundations of information retrieval, search simulation, philosophy and sociology of search
- EDUCATION** ◇ **University of Glasgow**, Glasgow, UK.
Ph.D. in Computer Science (Information Retrieval), 2003-2008
Thesis: *Foundations Research in Information Retrieval Inspired by Quantum Theory*.
BSc (Hons) in Computer Science, Upper Second Class (2:1), 2000-2003.
- TEACHING EXPERIENCE** ◇ **Department of Electronics and Computer Engineering, International Islamic University, Kuala Lumpur, Malaysia** (November 2008- August 2009)
Assistant Professor, taught course on Object Oriented Programming in C++
- RESEARCH EXPERIENCE** ◇ **Department of Computer Science, University of Glasgow, UK** (Spring 2008-)
RAEng/EPSRC Research Fellow in the foundations of Information Retrieval.
◇ **School of Management and Information Systems, University of California at Berkeley, USA** (Autumn 2005)
Visiting researcher.
- ◇ **Department of Computer Science, University of Glasgow, UK**
Advisors: Prof. Keith van Rijsbergen and Dr. Joemon Jose.
· Research in applying formalisms from quantum theory to describing a search process (2003-present)
- ◇ **Department of Computer Science, University of Glasgow, UK**
Third year team project: Procedural Libraries for Cartoon Animation (December 2001-May 2002).
Advisor: Dr. John Patterson
Short Research Project on the Stable Roommates Problem with Ties (Summer 2001).
Advisor: Dr. David Manlove
- PUBLICATIONS** ◇ **Conference Papers (selected)**
-Quantum Theory and the Nature of Search (with C. J. van Rijsbergen), *Proceedings of the AAAI Symposium on Quantum Interaction, March 2007, Stanford, California USA 2007*
-Driving Simulator for Head-up Display Evaluation: Drivers Response Time on Accident Simulation Cases (with V.Charissis , W. Chan and C. Christomanos), presented at the *Driving Simulation Conference, DSC Asia/Pacific 2006 - Tsukuba, Tokyo, Japan*
◇ **Workshop Papers**
-Formalising Evaluation in Retrieval (with Keith van Rijsbergen and Joemon Jose) presented at the *Fifth International Conference on Conceptions of Library and Information Science - Context: nature, impact and role, Workshop on user evaluations, Glasgow, UK, 2005*

-The SIMINEV (Simulated Interactive Evaluation) Framework (with Keith van Rijsbergen and Joemon Jose), short paper presented at the *Glasgow-Strathclyde Conference in Information Retrieval, Glasgow, UK, 2004*.

◇ **Posters**

-A Formal Approach to Information Retrieval (Search) based on Quantum Mechanics presented at *Royal Society of Edinburgh Awards Presentation, Edinburgh, 2006*.

-Quantum Structures in Computational Information Retrieval(Search) (with Keith van Rijsbergen) presented at the *Workshop in Quantum Information, Computation and Logic: Exploring New Connections, Perimeter Institute, Waterloo, Canada, 2005*.

-A Quantum-Cognitive Framework for Information Retrieval (with Keith van Rijsbergen) presented at *Departmental Poster Competition, Glasgow, 2004*.

◇ **Talks**

-Re-thinking IR with influence from Physics. *Department of Computer Science, Queen Mary, University of London, April 2006*.

-Quantum Retrieval: A Theoretical Framework for IR Influenced by Physics. *School of Information and Management Systems, University of California at Berkeley, December 2005*.

-Mathematics for Information Retrieval. A series of talks about the use of mathematical structures in IR with emphasis on introducing quantum mechanical formalisms for retrieval. *University of Glasgow, 2005-*.

PROFESSIONAL
CERTIFICA-
TIONS
SKILLS

Microsoft Certified Professional (MCP), Informatics CTEC (Glasgow, 1999)

- ◇ Java, C++
- ◇ XP, Linux, Mac OSX
- ◇ English (Native), Bengali (Native)

OTHER
WORK
EXPERIENCE

- ◇ **Postgraduate Demonstrator**, University of Glasgow (October 2003 – 2006)
- ◇ **Undergraduate Tutorial Assistant**, University of Glasgow (October 2002 – May 2003)
- ◇ **Summer Intern**, IT Section, Fixed Income and Equities Department, Credit Suisse First Boston, London, UK (Summer 2002)
- ◇ **Undergraduate Research Assistant**, University of Glasgow (Summer 2001)
- ◇ **IT Support**, Oxfam Head Office, Glasgow (Summer 1999)
- ◇ **Private Tuition**, Glasgow (October 1999 – 2003) MSc IT tutoring (October 2002 – August 2003) and tutoring for undergraduate/school courses (October 1999 – August 2003)

AWARDS

- ◇ Royal Society of Engineering/EPSCRC Research Fellowship, March 2008-2013
- ◇ Lessels Travelling Award from The Royal Society of Edinburgh, Autumn 2005
- ◇ Ph.D Scholarship from the The Engineering and Physical Sciences Research Council (EPSCRC), October 2004-2006
- ◇ Cadence Alba prize for best practical performance in third year, 2002
- ◇ Vacation Research Scholarship (University of Glasgow), 2001

INTERESTS

Creative writing, Philosophy, Theology, History & Literature.

REFERENCES

Available upon request