

George M. Ferguson, Ph.D.
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Objective: A senior position in software research or development that will allow me to use my creativity and deep technical skills to create systems that will help change the world

Strengths

- Excellent analytic and problem-solving skills, both creative and critical
- Excellent programming skills, including web and mobile
- Deep understanding of how to design and develop computational solutions to hard problems
- Extensive experience on the cutting edges of human-computer interaction
- Excellent inter-personal skills, very highly rated teaching, effective participation in and management of both technology and administrative teams
- UR Students' Association 2018-2019 **Professor of the Year** in Engineering and Applied Sciences

Technical Skills

Artificial Intelligence

- Human-computer interaction
- Machine learning
- Natural language processing
- Intelligent agents
- Multimodal systems
- User-centered design

Software Development

- Java, C, Objective-C, Swift, Lisp, Perl, PHP, Python, Ruby, ...
- XCode, Eclipse, svn, git, ...
- TCP/IP, distributed systems
- Unix/Linux system admin
- Open source development

Web & Mobile

- HTML, CSS
- Javascript, AJAX, jQuery, Django, WordPress, ...
- CGI, JSP, MySQL, SQLite, ...
- Apache
- iOS & Android apps

Experience

2018-Present: Associate Professor (Instruction), Co-Director of Undergraduate Program

2015-2017: Senior Lecturer, Assoc. Director of Undergraduate Studies

Dept. of Computer Science, University of Rochester

- Teaching large introductory and advanced CS courses; Curricular development and planning; Data analytics and process development to support department growth; External and internal liaison

2013-2015

Director, Ronald Rettner Hall for Media Arts and Innovation, University of Rochester

- Responsible for operations, programming, and curricular development for an interdisciplinary, multi-purpose MakerSpace; Teaching and curricular development for Digital Media Studies pgm

1997-2013

Research Scientist, Dept. of Computer Science, University of Rochester

- Defined the fields of *mixed-initiative systems* and *conversational assistants* that combine natural human-computer interaction with intelligent decision support; 50+ research publications
- Primary architect and developer of prototype collaborative assistant systems for logistics, crisis management, personal healthcare, and task learning, among other applications
- Proposed, received, and managed projects from agencies including DARPA, ONR, NSF, NIH, and the Robert Wood Johnson Foundation totaling more than \$10M for our group
- Founding member of the Center for Future Health at the UR Medical Center whose mission was to develop interdisciplinary technologies to keep people healthy in their homes (1999-2009)

Education

Ph. D.	Computer Science	University of Rochester	1995
M. Sc.	Computer Science	University of Rochester	1989
M. Sc.	Computing Science	University of Alberta	1989
B. Sc.	Math & Computer Science (<i>Magna Cum Laude</i>)	McGill University	1987

Selected Awards, Honors, and Professional Service

- UR Students' Association 2018-2019 Professor of the Year in Engineering and Applied Sciences
- Outstanding Paper, Twenty-Second National Conference on Artificial Intelligence (AAAI-2007)
- Program co-Chair, Nineteenth National Conference on Artificial Intelligence (AAAI-2004)
- Invited participant, CCC-NSF-NIH Symposium on Computing and Health: New Opportunities and Directions, 2012
- Program Committee, AAAI Spring Symposium on AI and Health Communication, 2011
- Organizer, AAAI 2007 Spring Symposium on Intentions in Intelligent Systems
- Invited participant, Robert Wood Johnson Synergy Workshop on Technology for Self-Care and Self-Monitoring, 2005
- Program Committees: AAAI, IJCAI, KCAP, UIST, IUI, PRICAI, ...
- Panelist/Reviewer: National Science Foundation (NSF), academic and SBIR programs

Full academic CV: <http://www.georgeferguson.com/george/cv>

Selected Significant Publications

- Ferguson, G., and Allen, J. (2011). A Cognitive Model for Collaborative Agents. *Proceedings of the AAAI 2011 Fall Symposium on Advances in Cognitive Systems*, AAAI Press Technical Report FS-11-01.
- Ferguson, G., Quinn, J., Horwitz, C., Swift, M., Allen, J., and Galescu, L. (2010). Towards A Personal Health Management Assistant. *Journal of Biomedical Informatics* 43(5): S13-S16.
- Ferguson, G., and Allen, J. (2007). Mixed-Initiative Dialogue Systems for Collaborative Problem-Solving. *AI Magazine* 28(2): 23-32, Special Issue on Mixed-Initiative Assistants.
- Allen, J., Chambers, N., Ferguson, G., Galescu, L., Jung, H., Swift, M., and Taysom, W. (2007). PLOW: A Collaborative Task Learning Agent. *Proceedings of the Twenty-Second Conference on Artificial Intelligence (AAAI-07)*: 1514-1519. Outstanding paper award winner.
- Allen, J., Ferguson, G., Blaylock N., Byron, D., Chambers, N., Dzikovska, M., Galescu, L., and Swift, M. (2006). Chester: Towards a Personal Medication Advisor. *Journal of Biomedical Informatics, Special Issue on Dialog Systems for Health Communication*, 39(5): 500-513.
- Allen, J., G. Ferguson, and A. Stent (2001). An Architecture for More Realistic Conversational Systems. *Proceedings of the Conference on Intelligent User Interfaces (IUI-01)*: 1-8.

Full list of academic publications: <http://www.georgeferguson.com/george/papers>

Additional Responsibilities and Interests

- USA Hockey Level 4 coaching certification; many years coaching youth hockey
- Music, cooking, hiking