Ellen Zegura
Professor
School of Computer Science
Georgia Tech

Awards and honors and year received (list--no more than *five* items):

- Fleming Chair in Telecommunications, 2016
- Georgia Tech Women of Distinction Award, 2015
- ACM Fellow, 2013
- IEEE Fellow, 2011

Have you previously been involved in any CRA activities? If so, describe.

- I have served on the CRA Board of Directors since 2011 and on the Executive Committee since 2014.
- In the last year I was co-chair of the planning committee for the bi-annual Snowbird conference, in charge of the content of the program.
- In recent years I served on the committee that produced the best practices memo on evaluating scholarship in hiring, promotion and tenure, and on the CRA communications committee during a substantial effort to update CRA's branding and external communications.
- In my early days as a faculty member, I participated in the CRA Distributed Mentor program by hosting 1-2 undergraduates in my lab several summers. I also took part in the undergraduate selection process one of those years.

List any other relevant experience and year(s) it occurred (list—no more than *five* items).

- Chair of the School of Computer Science, Georgia Tech, 2005-2012
- Associate Dean in the College of Computing, Georgia Tech, 2003-2005
- Co-chair of the CRA Network Science and Engineering Research Council, 2007-2008
- Creator of Data Science for Social Good summer internship program, 2014-present
- Editor-in-Chief, IEEE/ACM Transactions on Networking, 2002-2004

Research interests: (list only)

- Computer networking
- Information and communication technologies and development
- Computing for social good

Personal Statement

Ellen W. Zegura has been on the faculty of the College of Computing at Georgia Tech since 1993 where she conducts research and teaches in computer networking and computing for development. She is a Fellow of the IEEE, a Fellow of the ACM, and an elected member of the Computing Research Association (CRA) Board and, since Fall 2014, the Executive Committee. Recently she co-chaired the Snowbird 2016 planning committee. She is interested in computing to

help address pressing social problems and has created both a Computing for Good course and a Data Science for Social Good summer internship program.

Brief Biography or CV
(Attached)

ELLEN W. ZEGURA

PROFESSIONAL PREPARATION

Washington University, St. Louis	Computer Science	B.S. 1987
Washington University, St. Louis	Electrical Engineering	B.S. 1987
Washington University, St. Louis	Computer Science	M.S. 1990
Washington University, St. Louis	Computer Science	D.Sc. 1993

APPOINTMENTS

Fleming Chair (as of 2016) and Professor, Computer Science, Georgia Tech	2004-present
Chair, School of Computer Science, Georgia Tech	2007-2012
Associate Dean, College of Computing, Georgia Tech	2003-2007
Associate Professor, College of Computing, Georgia Tech	1999-2004
Assistant Professor, College of Computing, Georgia Tech	1993-1999

PUBLICATIONS MOST CLOSELY RELATED TO PROPOSAL

1. Gillani, F., Al-Shaer, E., Lo, S., Duan, Q., Ammar, M., Zegura, E.W. "Agile Virtualized Infrastructure to Proactively Defend Against Cyber Attacks," Proceedings of IEEE Infocom, April 2015.
2. Lo, S., Ammar, M., Zegura, E.W., Fayed, M. "Virtual network migration on real infrastructure: a PlanetLab case study," Proceedings of IFIP Networking Conference, 2014.
3. Lo, S., Ammar, M., Zegura, E., "Design and Analysis of Schedules for Virtual Network Migration," Proceedings of IFIP Networking Conference, Brooklyn, NY, May 2013.
4. Feamster, N., Rexford, J., Zegura, E. W. "The Road to SDN: An Intellectual History of Programmable Networks" ACM Queue, 11(12), 2013.
5. Karbhari, P., Ammar, M., Zegura, E.W. "Optimizing End-to-End Throughput for Data Transfers on an Overlay-TCP Path." Proceedings of IFIP NETWORKING, May 2005.

OTHER SIGNIFICATION PUBLICATIONS

6. Zhao, W., Ammar, M., Zegura, E.W., "A Message Ferrying Approach for Data Delivery in Sparse Mobile Ad Hoc Networks," Proceedings of the ACM International Symposium on Mobile Ad hoc Networking and Computing, p. 187-198, May 2004.
7. Shi, C., Lakafosis, V., Ammar, M., Zegura, E.W. "Serendipity: Enabling Remote Computing among Intermittently Connected Mobile Devices," Proceedings of the ACM International Symposium on Mobile Ad hoc Networking and Computing, p. 145-154, 2012. (Best paper award.)
8. Shi, C., Joshi, K., Panta, R., Ammar, M., Zegura, E.W. "CoAST: collaborative application-aware scheduling of last-mile cellular traffic," Proceedings of ACM International Conference on Mobile Systems, Applications and Services, p. 245-258, 2014.
9. Shi, C., Habak, K., Pandurangan, P., Ammar, M., Naik, M., Zegura, E.W. "COSMOS: computation offloading as a service for mobile devices," Proceedings of the ACM International Symposium on Mobile Ad hoc Networking and Computing, p. 287-296, 2014.
10. Habak, K., Ammar, M., Harras, K., Zegura, E.W. "FemtoClouds: Leveraging Mobile Devices to Provide Cloud Service at the Edge," Proceedings of the 8th IEEE International Conference on Cloud Computing, June 2015, New York.

SYNERGISTIC ACTIVITIES

1. Computing Research Association Board of Directors, 2011-present
Within the CRA, Zegura has served on the Communications sub-committee; on the Committee for Best Practices for Hiring, Promotion, and Scholarship; and as Co-Chair of the bi-annual CRA Snowbird Conference in 2016. She has been on the CRA Executive Committee since November 2014.

2. Co-director, Georgia Tech Serve.Learn.Sustain Initiative
As part of university-wide accreditation, Georgia Tech has selected an initiative entitled Serve.Learn.Sustain to be the centerpiece of re-accreditation and to serve as the plan for a campus initiative to be developed over the next five years. Serve.Learn.Sustain seeks to increase opportunities for students and faculty to be engaged in research and learning in communities around issues of sustainability.

3. Co-director, Georgia Tech Computing for Good
Computing for Good (C4G) is a project-based research and education effort in the Georgia Tech College of Computing. Created in 2008, C4G focuses on opportunities to work with partners on pressing social problems where computing may play a role. To date, a C4G project-based course has been offered eight times, with more than 300 undergraduate and MS-level students completing the course. Deployed projects are active in various parts of Africa, Atlanta, and Bangladesh.

4. Co-creator, Georgia Tech Data Science for Social Good Summer Internship Program
Data Science for Social Good (DSSG) is a project-based internship program offered for 10 weeks in the summer at Georgia Tech. Students with backgrounds in computer science, data science, mathematics, statistics and social sciences are grouped in teams to work on projects from external partners. The projects emphasize the acquisition, cleaning, analysis and visualization of data. To date, 12 projects have been completed over three years.