PROMOTION RECOMMENDATION
University of Michigan
College of Engineering
Department of Electrical Engineering and Computer Science

Jason N. Flinn, associate professor of electrical engineering and computer science, with tenure, Department of Electrical Engineering and Computer Science, College of Engineering, is recommended for promotion to professor of electrical engineering and computer science, with tenure, Department of Electrical Engineering and Computer Science, College of Engineering.

Academic Degrees:

Ph.D.	2001	Carnegie Mellon University, Computer Science, Pittsburgh, PA
M.S.	1996	Syracuse University, Computer Engineering, Syracuse, NY
B.S.E.	1991	University of Pennsylvania, Computer Science and Engineering, Philadelphia, PA
B.S.	1991	University of Pennsylvania, Economics, Philadelphia, PA

Professional Record:

2008 – present	Associate Professor (with tenure), Department of Electrical Engineering and Computer Science, University of Michigan
2002 – 2008	Assistant Professor, Department of Electrical Engineering and Computer Science, University of Michigan
2001 – 2002	Post-Doctoral Intern, Intel Research, Pittsburgh, PA
1991 – 1996	Staff Programmer, IBM, Pittsburgh, PA

Summary of Evaluation:

Teaching: Student evaluations indicate Professor Flinn has been a very effective teacher in the classroom, inspiring a number of students to get involved in research. He has made outstanding contributions to both undergraduate and graduate teaching at lower levels, senior-levels, and at the graduate level. He significantly revised two main courses at the graduate level and he helped create a special topics course (EECS 498, Cloud Computing in the Commute). His efforts have resulted in his receiving the College of Engineering Education Excellence Award in 2012. The theme that emerges from undergraduate and graduate student letters is that Professor Flinn has deep knowledge in the courses he teaches, cares about the students, is passionate about teaching, and sets the bar very high. Student evaluations in both graduate and undergraduate courses range from above average to excellent. Professor Flinn has graduated six Ph.D. students and has five Ph.D. students in progress, one of which expected to graduate in early 2014.

Research: Professor Flinn conducts research in the areas of mobile computing and operating systems, focusing on the design of energy-efficient and robust software systems. He is among the top researchers in the software systems community. Professor Flinn's work stands out for its creative combination of rigor with application. In addition to offering deep insights into his field, Professor Flinn has built powerful tools that enable us to attack challenging problems in the areas of software reliability and parallel programming, and progress beyond what was previously possible. Professor Flinn has won multiple best paper awards at the top conferences of his discipline and has an outstanding national and international reputation. The external reviewers offer uniformly high praise for his research. Professor Flinn's research has been supported by both government agencies and industrial sponsors. Since 2008, he has been supported by the Defense Advanced Research Projects Agency, the National Science

Foundation, General Electric Corporation, Ford Motor Company, NetApp, and Intel Corporation and has been an investigator on grants totaling $2.8M, with his share totaling $1.4M.

Recent and Significant Publications:

Kyungmin Lee, Jason Flinn, T.J. Giuli, Brian Noble and Christopher Peplin, "AMC: Verifying User Interface Properties for Vehicular Applications," in *Proceedings of the 11th International Conference on Mobile Systems, Applications, and Services (MobiSys)*, Taipei, Taiwan, June, 2013.

Mona Attariyan, Michael Chow and Jason Flinn, "X-Ray: Automatic Root-Cause Diagnosis of Performance Anomalies in Production Software," Best student paper award, in *Proceedings of the 10th USENIX Symposium on Operating Systems Design and Implementation (OSDI)*, Hollywood, CA, October 2012.

Dongyoon Lee, Peter M. Chen, Jason Flinn and Satish Narayanasamy, "Chimera: Hybrid Program Analysis for Determinism," in *Proceedings of Programming Language Design and Implementation (PLDI)*, Beijing, China, June 2012.

Kaushik Veeraraghavan, Dongyoon Lee, Benjamin Wester, Jessica Ouyang, Peter M. Chen, Jason Flinn and Satish Narayanasamy, "DoublePlay: Parallelizing Sequential Logging and Replay," Best paper award, in *Proceedings of the 16th International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS)*, Long Beach, CA, March 2011.

Mona Attariyan and Jason Flinn, "Automating Configuration Troubleshooting with Dynamic Information Flow Analysis," in *Proceedings of the 9th USENIX Symposium on Operating Systems Design and Implementation (OSDI)*, Vancouver, BC, October 2010.

Ya-Yunn Su and Jason Flinn, "Automatically Generating Predicates and Solutions for Configuration Troubleshooting," in *Proceedings of the USENIX Annual Technical Conference*, San Diego, CA, June 2009.

Edmund B. Nightingale, Kaushik Veeraraghavan, Peter M. Chen and Jason Flinn, "Rethink the Sync," *ACM Transactions on Computer Systems*, Vol. 26, No. 3, September 2008.

Service: Professor Flinn's service to the national and international research community in software systems is a great credit to his department, the college, and the university. Within the department, Professor Flinn has served on the Computer Science and Engineering Division's graduate committee and later the graduate admissions committee, on faculty search committees, on casebook committees, and as liaison to the School of Information. He has served as chair of the graduate admissions committee since 2012. For his profession, Professor Flinn has served as the program co-chair for three prestigious conferences, on numerous program committees of top-tier conferences, and on two editorial boards. On a number of occasions, he also has served as a National Science Foundation panelist.

External Reviewers:
Reviewer A: "As for the quality of Professor Flinn's papers, it is outstanding...his record, I believe, would warrant that promotion at any major University, and I can confidently say based on my past experience that at [my institution] he would be promoted with flying colors."
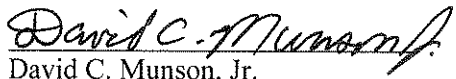
Reviewer B: "In the broad area of 'systems,' Professor Flinn is one of the leading scholars of his generation...He is creative, and his work is deep. He will make an excellent Professor at Michigan for years to come."

Reviewer C: "The two primary papers describing these ideas won awards at our field's top annual research forums (SOSP in 2005 and OSDI 2006). Winning one such award is a big deal. Winning two, in consecutive years, is a clear sign of superior research capabilities."

Reviewer D: "Because of the high visibility of his research, Jason is regularly asked to serve on program committees...He is a leader in both mobile computing and in operating systems, and is among the top researchers in each community. I recommend him most strongly for promotion [to] professor."

Reviewer E: "The fact that Professor Flinn's students have gotten interview invitations from many top CS departments...is a strong indication of the impact and visibility of Jason's research."

Summary of Recommendation: Professor Flinn has established an exemplary record of teaching, research and service at the University of Michigan. His students consider him to be a very caring teacher who is deeply knowledgeable and passionate about teaching and one who sets the bar high. Professor Flinn has an outstanding national and international reputation in research. His service both within the University of Michigan as well as outside of the university is remarkable. It is with the support of the College of Engineering Executive Committee that I recommend Jason N. Flinn for promotion to professor of electrical engineering and computer science, with tenure, Department of Electrical Engineering and Computer Science, College of Engineering.

David C. Munson, Jr.
Robert J. Vlasic Dean of Engineering
College of Engineering

May 2014