

PROMOTION RECOMMENDATION
The University of Michigan
College of Engineering

Dragomir Radkov Radev, associate professor of electrical engineering and computer science, without tenure, Department of Electrical Engineering and Computer Science, College of Engineering, is recommended for promotion to professor of electrical engineering and computer science, without tenure, Department of Electrical Engineering and Computer Science, College of Engineering [also professor of information, with tenure, School of Information, and professor of linguistics, without tenure, College of Literature, Science, and the Arts].

Academic Degrees:

Ph.D. 1999	Columbia University, New York, NY, Computer Science
M.S. 1996	Columbia University, New York, NY, Computer Science
B.A. 1993	University of Maine, Orono, Computer Science w/concentration in Linguistics

Professional Record:

2005 – present	Associate Professor, Department of Electrical Engineering and Computer Science; Professor, School of Information, and Professor, Linguistics, College of Literature, Science, and the Arts, University of Michigan
2005 – 2009	Associate Professor, Department of Electrical Engineering and Computer Science, College of Engineering; Associate Professor, School of Information, and Associate Professor, Linguistics, College of Literature, Science, and the Arts, University of Michigan
2000 – 2005	Assistant Professor, Electrical Engineering and Computer Science, College of Engineering; Assistant Professor, School of Information, and Assistant Professor, Linguistics, College of Literature, Science, and the Arts, University of Michigan
2005 – present	Faculty member, Program in Bioinformatics; Faculty member, Center for Computational Medicine and Biology, University of Michigan
2006 – present	Adjunct Associate Professor, Computer Science, Columbia University, NY
1999	Adjunct Assistant Professor, Computer Science, Columbia University, NY
1998 – 1999	Research Staff Member, IBM TJ Watson Research Center, Hawthorne, NY

Summary of Evaluation

Teaching: Professor Radev has accumulated a strong record of teaching in Computer Science and Engineering (CSE) as well as in the School of Information (SI) and the Department of Linguistics. These courses cover a broad range of topics from text processing to search and database application design. Because of his unique expertise in the areas information retrieval (IR) and natural language processing (NLP), Professor Radev's teaching for the College of Engineering has been at the graduate level. He is known for bringing examples from other disciplines - including bioinformatics, physics and social sciences - into his courses in IR and NLP. In the area of curriculum development, Professor Radev has made significant contributions through creation of new courses and significant improvement of existing courses in CSE and SI. He is also noted for mentoring graduate students, providing them with a healthy balance of independence and support. He has graduated five doctoral students in CSE and SI who have secured positions in academia and industry. Professor Radev is currently advising four doctoral students. Professor Radev has made extraordinary contributions as an educator outside the classroom. He has supervised more than 40 student projects through independent study and UROP. He has a legendary

reputation as the coach of the highly successful USA team in the International Computational Linguistics Olympiad.

Research: Professor Radev is one of the world's most active and prominent researchers in the area of computational linguistics and is highly regarded for his influential work in the areas of multi-document summarization and graph-based methods for natural language processing and information retrieval. Furthermore, Professor Radev is considered a pioneer in applying natural language processing to other disciplines including bioinformatics, bibliometrics and social sciences. The quality of Professor Radev's research is further evidenced by his impressive publication record in archival journals; highly selective conferences in natural language processing and in data mining and information retrieval. Professor Radev has been very successful in attracting external support for his research including several highly competitive grants from NSF and IARPA. The external letters from prominent researchers in computer science and linguistics are unanimous in their assessment of the quality and impact of his work and long-term research promise.

Recent and Significant Publications:

Gunes Erkan, Ahmed Hassan, Qian Diao, and Dragomir Radev. Improved nearest neighbor methods for text classification with language modeling and harmonic functions. *Information processing and Management*, 2010.

Arzucan Ozgur, Zhuohuang Xiang, Dragomir R. Radev, and Yongqun He. Literature-based discovery of ifn-gamma and vaccine-mediated gene interaction networks. *Journal of Biomedicine and Biotechnology*, 2010.

Kevin Quinn, Burt Monroe, Michael Colaresi, Michael Crespino, and Dragomir R. Radev. How to analyze political attention with minimal assumptions and costs. *American Journal of Political Science*, 2010.

Aleks Aris, Ben Shneiderman, Vahed Qazvinian, and Dragomir R. Radev. Visual overviews for discovering key papers and influences across research fronts. *Journal of the American Society for Information Science and Technology*, 2009.

Dragomir R. Radev, Mark Joseph, Bryan Gibson, and Pradeep Muthukrishnan. A Bibliometric and Network Analysis of the Field of Computational Linguistics. *Journal of the American Society for Information Science and Technology*, 2009.

V. G. Tarcea, T. Weymouth, A. Ade, A. Bookvich, J. Gao, V. Mahavisno, Z. Wright, A. Chapman, M. Jayapandian, A. Ozgur, Y. Tian, J. Cavalcoli, B. Mirel, J. Patel, D. Radev, B. Athey, D. States, and H. V. Jagadish. Michigan molecular interactions (mimi) r2: From interacting proteins to pathways. *Nucleic Acids Research*, 37:D642-D646, January 2009.

Service: Professor Radev's record of external service to the profession is unparalleled. He has served on program committees of major conferences and notable workshops, is an associate editor of the *Journal of Artificial Intelligence Research* (JAIR), and is on the editorial boards of *Information Retrieval* and *Journal of Natural Language Engineering*. Since 2006, he has had significant impact on his field as the elected secretary of the Association for Computational Linguistics (ACL). He co-founded the North American Computational Linguistics Olympiad – a competition for high school students that has grown to more than 1200 students from 80 high schools – and coached the USA high school team twice to first place finishes at the international level. This is an impressive outreach activity that demonstrates Professor Radev's deep commitment as an educator and mentor. Professor Radev's record of internal service includes membership on several committees in the School of Information and active participation in faculty recruiting and graduate admissions in Computer Science and Engineering. He organized a highly successful internal workshop on Text and Data Mining in 2010, which brought together more than 100 faculty and students from a wide range of units across campus.

External Reviewers:

Reviewer A: “Drago is a prolific researcher, and has had a major impact in the areas [of] document summarization and graph-based methods for natural-language processing, particularly in the context of summarization as well.”

Reviewer B: “As Coach of the ACM programming team, Dragomir started from scratch and created the strongest team in the history of the department. Under his apt guidance, the team won three consecutive regional contests and went three times to the International Finals, where it finished in the top 10 (out of thousands of teams from all continents).”

Reviewer C: “Radev is an extraordinarily creative and influential scholar with an outstanding international reputation, someone who has had a huge impact on the field with his own algorithms, as well as the trailblazing aspects of his work linking natural language processing with other disciplines like information processing, bioinformatics, and the social sciences. ... Radev’s record in service and pedagogy as an international is as exemplary as his research record. ... he has single-handedly brought more high school students into our field than any other person.”

Reviewer D: “In terms of service, Dragomir is simply doing more than any other person to promote the field of computational linguistics. ... He also organized the North American Computational Linguistics Olympiad, which is getting young people interested in our field.”

Reviewer E: “The most recent work by Prof. Radev which I have read is a paper on literature-based discovery in medicine.... This is again progress towards a goal that people have been seeking for decades and is a very important advance.”

Reviewer F: “Drago has successfully published his work in the area in both the computer science and biological literature, indicating that it is truly interdisciplinary work that both develops novel algorithms and language-processing techniques while also contributing to aiding the discovery of important new biological knowledge.”

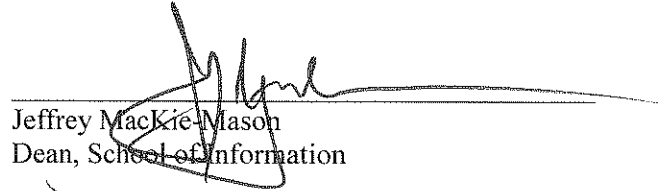
Reviewer G: “He is truly one of [the] rare researchers who can carry out interdisciplinary research without losing scientific credibility in individual academic communities.”

Reviewer H: “Dr. Radev is a star in his field. Evidence for this includes his publication record...his research grant funding record, his wide range of top collaborators, and his frequent selection as summarizer, special issue editor or panelist for a wide range of topics.”

Summary of Recommendation: Professor Radev has sustained a highly productive and influential research program at the University of Michigan, through which he has earned leadership stature in his field of computational linguistics – a field that spans computer science, information science and linguistics. He has been an innovator in teaching, has excelled in student mentoring, and has demonstrated an unparalleled record of external service to the computational linguistics community. Granting promotion to Professor Radev will strengthen the College of Engineering’s position in an exciting and still developing area of research. The reviewers are unanimous in their assessment of the quality and impact of his work, and his long-term scholarly promise. It is with the unanimous support of College of Engineering Executive Committee that I recommend Dragomir Radkov Radev 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



Jeffrey MacKie-Mason
Dean, School of Information



Terrence J. McDonald
Arthur F. Thurnau Professor
Professor of History, and Dean
College of Literature, Science, and the Arts

May 2011