

JANA DIESNER

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Citizenship: Permanent Resident of the USA (Greencard), German

Goal

To obtain a challenging position at a university or research lab that allows me to use my interdisciplinary training and work experience to develop solutions to problems that impact society, to engage people in computational thinking, and to encourage women to pursue careers in computing.

Skills

- Analytical and technical: Formalize fuzzy problems and develop practical, computational solutions (machine learning, artificial intelligence, natural language processing, network analysis).
 - Teaching and communications: Design, prepare and provide courses and workshops in my areas of expertise including training for network analysis, respective software, and computational thinking.
 - Leadership: Organize outreach to school students to develop and nurture their interest and skills in STEM (Science, Technology, Engineering, Math).
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Education

Carnegie Mellon University, School of Computer Science, Pittsburgh, PA 2006 - 2010

Ph.D. in Computation, Organizations, Society

Research: Spanning the boundary between computational linguistics and network science to better understand the co-evolution and interplay of the semantics and mechanics of real-world networks.

Advisor: Prof. Dr. Kathleen M. Carley

Carnegie Mellon University, School of Computer Science, Pittsburgh, PA

M.S. in Computation, Organizations, Society

12/2007

Certificate: Expertise in Dynamic and Social networks

05/2007

Dresden University of Technology, Dresden, Germany

03/2003

M.A. in Communication

Thesis: "Automatic Retrieval of Using Patterns applied to Online News"

Advisor: Prof. Dr. Wolfgang Donsbach

Carnegie Mellon University, Institute for Complex Engineered Systems (ICES)

in 2000-2002

Research Scholar

Employment

Software Developer & Research Associate

06/2003 – 08/2006

Carnegie Mellon University, School of Computer Science

- Lead developer for a software for natural language processing, cognitive modeling, network analysis.
 - Management: Interview, train, and supervise programming and text coding assistants, web developers.
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Publications

Journal Papers

Diesner, J., & Carley, K. M. (2008). Conditional Random Fields for Entity Extraction and Ontological Text Coding. *Journal of Computational and Mathematical Organization Theory*, 14, 248 - 262.

Carley, K. M., Diesner, J., Reminga, J., & Tsvetovat, M. (2007). Toward an interoperable dynamic network analysis toolkit. *Decision Support Systems*, Special Issue on Homeland Security Infrastructure 43(4), 1324-1347.

Diesner, J., Frantz, T. L., & Carley, K. M. (2005). Communication Networks from the Enron Email Corpus "It's Always About the People. Enron is no Different". *Computational and Mathematical Organization Theory*, 11(3), 201-228.

Refereed Conference Papers

Diesner, J., & Carley, K. M. (2009). *He says, she says. Pat says, Tricia says. How much resolving anaphora and co-references matters for entity extraction, relation extraction, and social network analysis.* In Proceedings of IEEE Symposium on Computational Intelligence for Security and Defence Applications (CISDA), Ottawa, Canada, July 2009.

- Diesner, J., & Carley, K. M. (2007). *Conditional Random Fields for Entity Extraction and Ontological Text Coding*. North American Association for Computational Social and Organizational Science (NAACSOS) Conference, Atlanta, GA, July 2007.
- Lecy, J., Diesner, J., & Carley, K. M. (2006). *Identification of Knowledge Groups from the Enron Email Corpus*. 56th Annual Conference of the International Communication Association (ICA), Dresden, Germany, June 2006.
- Diesner, J., Kumaraguru, P., & Carley, K. M. (2005). *Mental Models of Data Privacy and Security Extracted from Interviews with Indians*. 55th Annual Conference of the International Communication Association (ICA), New York, NY, May 2005.
- Diesner, J., & Carley, K. M. (2005). *Exploration of Communication Networks from the Enron Email Corpus*. In Proceedings of SIAM International Conference on Data Mining, Workshop on Link Analysis, Counterterrorism and Security, pg. 3- 14, Newport Beach, CA, April 2005.
- Diesner, J., & Carley, K. M. (2004). *Using Network Text Analysis to Detect the Organizational Structure of Covert Networks*. In Proceedings of the North American Association for Computational Social and Organizational Science (NAACSOS) Conference, Pittsburgh, PA, July 2004.
- Carley, K. M., Diesner, J., Reminga, J., & Tsvetovat, M. (2004). *An Integrated Approach to the Collection and Analysis of Network Data*. In Proceedings of the North American Association for Computational Social and Organizational Science Conference (NAACSOS), Pittsburgh, PA, July 2004.
- Lewis, E. T., Diesner, J., & Carley, K. M. (2001). *Using Automated Text Analysis to Study Self-Presentation Strategies*. In Proceedings of the Computational Analysis of Social and Organizational Systems Conference (CASOS), Pittsburgh, PA, July 2001.

Refereed Conference Presentations

- Diesner, J., & Carley, K. M. (2009). WYSIWII - What You See Is What It Is: Informed Approximation of Relational Data from Texts. Presentation at General Online Research (GOR) Conference, Vienna, Austria, April 2009.

Book Chapters

- Diesner, J., & Carley, K. M. (forthcoming). Relation Extraction from Texts (in German, title: Extraktion relationaler Daten aus Texten). In C. Stegbauer & R. Häußling (Eds.), *Handbook Network Research (Handbuch Netzwerkforschung)*. Vs Verlag.
- Diesner, J., & Carley, K.M. (forthcoming). Relationa methods in law enforcement (in German, title: Relationale Verfahren in der kriminologischen und kriminalistischen Forschung, Prävention und Ermittlung). In C. Stegbauer & R. Häußling (Eds.), *Handbook Network Research (Handbuch Netzwerkforschung)*. Vs Verlag.
- Weil, S. A., Foster, P., Freeman, J., Carley, K., Diesner, J., et al. (2008). Converging Approaches to Automated Communications-based Assessment of Team Situation Awareness. In M. P. Letsky, N. W. Warner, S. M. Flore & C. A. P. Smith (Eds.), *Macroognition in Teams. Theories and Methodologies*. Aldershot: Ashgate.
- Diesner, J., & Carley, K. M. (2005). Revealing Social Structure from Texts: Meta-Matrix Text Analysis as a novel method for Network Text Analysis. In V. K. Narayanan & D. J. Armstrong (Eds.), *Causal Mapping for Information Systems and Technology Research* (pp. 81-108). Harrisburg, PA: Idea Group Publishing.

Technical Reports

- Diesner, J., & Carley, K. M. (2008). *Looking under the hood of stochastic part of speech taggers* (Technical Report CMU-ISR-08-131R): Carnegie Mellon Univ., School of Computer Science, Inst. Software Research.
- Frantz, T. L., Carley, K. M., & Diesner, J. (2005). *An Automated Methodology for Conducting a Social Network Study of a University Faculty* (Technical Report CMU-ISRI-05-106): Carnegie Mellon University, School of Computer Science, Institute for Software Research International.
- Tsvetovat, M., Diesner, J., & Carley, K. M. (2004). *NetIntel: A Database for Manipulation of Rich Social Network Data* (Technical Report CMU-ISRI-04-135): Carnegie Mellon University, School of Computer Science, Institute for Software Research International.
- Diesner, J., & Carley, K. M. (2004). AutoMap1.2 - Extract, analyze, represent, and compare mental models

from texts (Technical Report CMU-ISRI-04-100): Carnegie Mellon University, School of Computer Science, Institute for Software Research International.

Non-Refereed Conferences Presentations

- Diesner, J. (chair), Gadeib, A., Lüttschwager, F., Sassinot-Uny, L. (2009). Roundtable: Data Collection online: Can do, must (not) do, Should do. General Online Research (GOR) Conference, Vienna, Austria, April 2009.
- Diesner, J., Carley, K. M., & Katzmaier, H. (2008). *He Says, She Says - Identity and Polarization in Communication Networks of an Organization in Crisis*. Presentation at XXVIII Sunbelt Social Network Conference, St. Pete, FL, January 2008.
- McConville, E., Diesner, J., & Carley, K. M. (2008). *Software demonstration of AutoMap*. Poster at XXVIII Sunbelt Social Network Conference, St. Pete, FL, January 2008.
- Diesner, J., Carley, K. M., & Katzmaier, H. (2007). *The morphology of a breakdown. How the semantics and mechanics of communication networks from an organization in crisis relate*. Presentation at XXVII Sunbelt Social Network Conference, Corfu, Greece, May 2007.
- Weil, S. A., Carley, K. M., Diesner, J., Freeman, J., & Cooke, N. J. (2006). Measuring Situational Awareness Through Analysis of Communications: A Preliminary Exercise. Paper presented at the Command and Control Research and Technology Symposium San Diego, CA, June 2006.
- Diesner, J., Pfeffer, J., & Katzmaier, H. (2006). *Evaluating Scientific Classification Systems by Bottom-Up Clustering of Abstracts Using Semantic Network Analysis*. Presentation at XXVI Sunbelt Social Network Conference, Vancouver, BC, Canada, April 2006.
- Carley, K. M., Frantz, T., & Diesner, J. (2006). Social and Knowledge Networks from Large Scale Databases. Presentation at 56th Annual Conference of the ICA, Dresden, Germany, June 2006.
- Diesner, J., & Carley, K. M. (2005). *It's always about the people. Enron is no different*. Presentation at Building the CIRT Community Conf. II: Graduate Student Research at the Cutting Edge, Pittsburgh, PA, September 2005.
- Carley, K. M., Frantz, T., Diesner, J., & Davis, G. (2005). *Groups: Surface And Deep Structure*. Presentation at XXV Sunbelt Social Network Conference, Redondo Beach, CA, February 2005.
- Lewis, E. T., Carley, K. M., & Diesner, J. (2003). *Concept Networks In Organizational Language: Consensus or Creativity?* Presentation at XXIII Sunbelt Social Network Conference, Cancun, Mexico, February 2003.
- Lewis, E. T., Diesner, J., & Carley, K. M. (2002). *Using Network Analysis to Extract and Analyze Self-Presentation Strategies in Texts*. Presentation at XXII Sunbelt Social Network Conference, New Orleans, LA, February 2002.

Invited talks

- Deutsche Welle, Berlin, Germany: Diesner, J., & Ueschner, P. (08-01 2008). *Mapping Politics: From Words to Knowledge*.
- Chemnitz Art Museum, Chemnitz, Germany: Diesner, J., & Stützer, C. (07-24 2008). *Finding Relations*.
- Complexity Workshop at Mittweida Univ. of Applied Sciences, Germany: Diesner, J. (03-13 2008). *System Dynamics: Approach to Computational Modeling and Simulation*.
- Complexity Workshop at Univ. of Applied Sciences, Mittweida, Germany: Diesner, J. (01-03 2008). *Schürfrechte für Jedermann? Nicht alles geht, was technisch möglich ist. (Data Collection online: Feasible does not mean legal)*.
- Age of Simulation Conference, Linz, Austria: Diesner, J., Frantz, T., & Carley, K. M. (01-12 2006). *Communication Networks from the Enron Email Corpus*.
- FAS.research corporation, Vienna, Austria: Diesner, J. (05-19 2005). *Computer-supported Network Text Analysis*.
- Washington Institute for Near East Policy, Washington, D.C.: Diesner, J. (01-28 2005). *Extraction of the Social Structure of Covert Networks from Texts*.

Teaching Experience

Summer course instructor: *Extraction of Relational Data from Texts and Computational Thinking*. Mittweida University of Applied Sciences, Germany (three-week course in 2007 and 2008)

- Developed syllabus and overall course structure, administered grades
- **Workshop instructor:** *Tutorials on Information and Relational Data from Texts and Network Analysis*. Designed syllabus, prepared teaching material, gave lecture and hands-on training at:
 - Sunbelt XXIX International Sunbelt Social Network Conference, San Diego, CA (10/11-03 2009)
 - North American Assoc. for Computational Social and Organizational Science (NAACSOS) Conference, George Mason University, Fairfax, VA (07-15 2008) and Emory University, Atlanta, GA (07-07 2007)
 - General Online Research (GOR) Conference, University Hamburg, Germany (03-10 2008) and University of Vienna, Austria (04-06 2009)
 - Max Planck Institute for the Study of Societies, Cologne, Germany (05-18 2005), with Lothar Krempel.
 - CASOS Summer Institute, Carnegie Mellon University, Pittsburgh, PA (2004 – 2009)
- **Guest Lecture** at course 60-719 (ETB Studio): Information Visualization, taught by Ben Fry and Golan Levin. Carnegie Mellon University, Pittsburgh, PA (04-10, 2007)

Student Advising

2007/ 2008: Co-advised master thesis for Patric Ueschner, M.A. in Information & Communication Science. Mittweida University of Applied Sciences, Mittweida, Germany

Awards

- DAAD (German Academic Exchange Service): Travel grant for European Career Fair, January 2009
- IBM: Scholarship for Grace Hopper conference, Boulder, CO, October 2008
- Best Student Paper Award at North American Association for Computational Social and Organizational Science (NAACSOS) Conference, Atlanta, GA, July 2007 (Paper: Conditional Random Fields for Entity Extraction and Ontological Text Coding)
- SIAM (Society for Industrial and Applied Mathematics): Travel grant for SIAM International Conference on Data Mining, Newport Beach, CA, April 2005
- Student fellowship, Socrates-Erasmus Exchange Program, University of Granada, Spain (1999/2000)

Service and Membership

Service

- Organize, lead and participate in activities aimed towards encouraging school students, especially women, to pursue careers in science and computing. Examples:
 - Led the Computer Science track for the 2007 High School day at CMU with over 100 girls attending
 - Active contributor to outreach road shows and technical training sessions for school girls
 - Mentor at the CyberMentor Germany program
- Regional Ambassador USA for Dresden University of Technology, Germany (2008 – present)
- Program Committee member for General Online Research (GOR) 2009 conference
- Reviewer for:
 - ACM Transactions on Information Systems
 - Journal of Artificial Societies and Social Simulation (JASSS)
 - Journal of Computational and Mathematical Organization Theory (CMOT)
 - 14th Americas Conference on Information Systems (AMICS)

Membership

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| - ACM - Association for Computing Machinery | 2004 - present |
| - SIAM - Society for Industrial and Applied Mathematics | 2008 - present |
| - NAACSOS – North American Assoc. for Computational Social and Org. Science | 2004 - present |
| - INSNA – International Network for Social Network Analysis | 2002 - present |
| - GI – Gesellschaft fuer Informatik (German Association for Computer Science) | 2009 - present |
| - GAIN- German Academic Network | 2006 - present |

Languages

English – fluent, German – native, Spanish – medium proficiency, Latin

References upon request
