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Summary

A software engineer and computer scientist working across diverse data domains.

Education

B.S. The University of Kentucky, Computer Science (1982)
M.S. The Johns Hopkins University, Computer Science (2003)

Work Experience

1999 to present: The Johns Hopkins University Applied Physics Laboratory, Laurel, Maryland:
Software development and computer science research; representative projects have included:

- Co-investigator under a grant from the OSD Minerva Initiative investigating the spread of viral information across online social networks
- Principal investigator under a grant from the Office of Naval Research focused on inferring the demographics and sentiment of social media users and comparing inferred results with those from traditional surveys
- Other projects relating to the analysis of social media, including geolocation, crisis informatics, obtaining crowd-sourced text annotations, and disease surveillance
- General text analytics applications, including information retrieval, duplicate and near-duplicate detection, text-chat disentanglement, text normalization, and anomaly detection
- Development of an XML-based metadata standard for configuring data acquisition hardware to capture telemetry on military test ranges using Model Driven Architecture (MDA) to forward engineer schemas from UML
- Semantic Web applications for discovering and managing ontology mappings, querying distributed databases, and searching for RDF-based data on the World Wide Web
- Distributed software infrastructure for a mini-submarine trainer/simulator using C++
- Development of a website for the Maryland Motor Vehicle Administration Motor Carrier Program, using J2EE, for registering weigh station transponders for commercial truck drivers

1983 to 1999: Engineering and Information Services, Inc., under contract to The Johns Hopkins University Applied Physics Laboratory, Laurel, Maryland:

- Developed analysis applications in Visual Basic, C++, C, SAS, FORTRAN, and PL/1; developed and administered databases

1982 to 1983: CGA Software Products Group, Rockville, Maryland

- Software developer

Publications

Finin, T., Mayfield, J., Joshi, A., Cost, R., & Fink, C. (2005). Information retrieval and the semantic web. In *Proceedings of the 38th annual Hawaii international conference on system sciences* (p. 113a-122a). Washington, DC: IEEE Computer Society.

Bethea, W. L., Fink, C. R., & Beecher-Deighan, J. S. Onto-Mapology results for OAEI 2006. (2006). In *Proceedings of the 1st international workshop on ontology matching collocated*

- with the 5th international semantic web conference (pp. 144–152). *CEUR Workshop Proceedings*.
- Fink, C., Finin, T., Mayfield, J., & Piatko, C. (2008). *OWL as a Target for Information Extraction Systems*. Paper presented at OWL: Experiences and Directions Workshop, Gaithersburg, Maryland.
- Fink, C., Piatko, C., Finin, T., Mayfield, J., & Martineau, J. (2009). Geolocating blogs from their textual content. In *Proceedings of the AAAI 2009 spring symposium on social semantic web: where web 2.0 meets web 3.0* (pp. 25-27). Menlo Park, CA: AAAI.
- Alexander, D., Dorr, B., Eisner, J., Elsayed, J., Finin, T., Fink, C., Freedman, M., Garera, N., Mayfield, J., McNamee, P., Mohammad, S., Oard, D., Piatko, C., Sayeed, A., Syed, Z., Weischedel, R. (2009). In *Proceedings AAAI 2009 spring symposium on learning by reading and learning to read* (pp. 29-36). Menlo Park, CA: AAAI.
- Fink, C., Chou, D., Finin, T., Mayfield, J., Piatko, C., & Martineau, J. (2009). The geolocation of web logs from textual clues. In *Proceedings of the workshop on social mobile web, held in conjunction with the IEEE international conference on social computing* (pp. 1088-1092). Washington, DC: IEEE Computer Society.
- Rao, D., Paul, M., Fink, C., Yarowsky, D., Oates, T., & Coppersmith, G. (2011). Hierarchical bayesian models for latent attribute detection in social media. In *Proceedings of the fifth international conference on weblogs and social media* (pp. 598-601). Menlo Park, CA: AAAI.
- Fink, C., Kopecky, J., Bos, N., & Thomas, M. (2012). Mapping the Twitterverse in the developing world : an analysis of social media use in Nigeria. In *Proceedings of the 2012 International Conference on Social Computing, Behavioral Modeling, and Prediction*. Berlin, Heidelberg: Springer-Verlag.
- Sultanik, E., & Fink, C. (2012). Rapid Geotagging and Disambiguation of Social Media Text via an Indexed Gazetteer. In *Proceedings of the 2012 International Conference on Information Systems for Crisis Response and Management*.
- Fink, C., Kopecky, J., & Morawski, M. (2012) Inferring Gender from the Content of Tweets: A Region-Specific Example. In *Proceedings of the 6th International Conference on Weblogs and Social Media*. Menlo Park, CA: AAAI.
- Bergsma, S., McNamee, P., Bagdouri, M., Fink, C., & Wilson, T. (2012) Language Identification for Creating Language-Specific Twitter Collections. In *Proceedings of The Language and Social Media Workshop (NAACL 2012)*. Stroudsburg, PA: ACL.
- Glasgow, K., Ebaugh, A., & Fink, C. (2012). #Londonsburning: Integrating Geographic, Topical Social Information during Crisis. In *Proceedings of the sixth international conference on weblogs and social media*. Menlo Park, CA: AAAI.
- Park, J., Barash, V., Fink, C., & Cha, M. (2013). Emoticon Style: Interpreting Differences in Emoticons Across Cultures. In *Proceedings of the seventh international conference on weblogs and social media*. Menlo Park, CA: AAAI.
- Glasgow, K., & Fink, C. (2013). Hashtag Lifespan and Social Networks during the London Riots. In *Social Computing, Behavioral-Cultural Modeling and Prediction* (pp. 311-320). Berlin/Heidelberg: Springer
- Fink, C., Bos, N., Perrone, A., Liu, E., & Kopecky, J. (2013) Twitter, Public Opinion, and the 2011 Nigerian Presidential Election. in *Proceedings of the 2013 ASE/IEEE International Conference On Social Computing*.

- Schmidt, A., Fink, C., & Bos, N. (2014). Topical engagement on Twitter: Using consistency of activity as a means of user segmentation. In *Proceedings of the Eighth International Conference on Weblogs and Social Media*.
- Glasgow, K., Fink, C., & Boyd-Graber, J. (2014). Our grief is unspeakable: Automatically measuring the community impact of a tragedy. In *Proceedings of the Eighth International Conference on Weblogs and Social Media*. Menlo Park, CA: AAAI.
- Fink, C., Schmidt, A., Barash, V., Cameron, C., & Macy, M. (2016). Complex contagions and the diffusion of popular Twitter hashtags in Nigeria. *Social Network Analysis and Mining*, 6(1), 1-19.
- Fink, C., Schmidt, A. C., Barash, V., Kelly, J., Cameron, C., & Macy, M. (2016, March). Investigating the Observability of Complex Contagion in Empirical Social Networks. In *Tenth International AAAI Conference on Web and Social Media* (pp. 121-130). Menlo Park, CA: AAAI