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DAVID ADAMSON

EDUCATION

CARNEGIE MELLON UNIVERSITY
Pittsburgh PA — PhD in Language Technologies *in progress*
Master of Language Technologies *2012*

JOHNS HOPKINS UNIVERSITY
Baltimore MD — Resident Teacher Certification Program *2005*

OBERLIN COLLEGE
Oberlin OH — BA with High Honors in Computer Science *2004*

RECOGNITION

Membership Phi Beta Kappa, ACM, IAIED
Awards Distinguished Educator Award, Digital Harbor High School

EXPERIENCE

RESEARCH ASSISTANT
Language Technologies Institute, Pittsburgh PA *2010-2012, 2013-present*
Develop methods and technologies for text analysis, and for computer-supported collaborative learning in university and high school courses. Design and implemented remote and in-person experimental instructional interventions.
Advised by Carolyn P. Rosé.

VP OF RESEARCH AND DESIGN
LightSide Labs *2013-present*
Design and develop new technologies to support writing in the classroom. Direct the implementation of applied machine learning research to new and continuing products. Maintain and extend LightSide's open-source machine learning workbench.

RESEARCH PROGRAMMER
Language Technologies Institute, Pittsburgh PA *2012-2013*
Implemented and investigated methods and technologies for computer-supported collaborative learning in university and high school courses. Developed and maintained codebases and infrastructure for Carolyn P. Rosé's research group.

SOFTWARE DEVELOPER
Ludo Mechanica, Brightwork Labs & Obscure Games *2010-2012*
Developed, tested, and deployed a series of SMS-based pervasive games and playful communication tools for a handful of small Pittsburgh businesses and non-profits.
Maintained and improved the "Samosa" open-source messaging framework.

COMPUTER SCIENCE TEACHER
Digital Harbor High School, Baltimore MD *2005-2010*
Taught AP Computer Science and Cisco Networking Academy courses.
Instructional leader and supervisor for Networking Academy teachers.
Delivered local and regional networking instructor workshops.
Coach and mentor for the "Electric Sheep" US-FIRST robotics team.

MATH TEACHER
Augusta Fells Savage High School, Baltimore MD *2004-2005*
Taught Geometry at a high-needs high school.
Co-developed geometry lessons with peers at other schools.
Triaged and maintained computer resources. Dodged an egg.

PUBLICATIONS

Adamson, D., Dyke, G., Jang, H. J., Rose, C. P. (accepted). Towards an Agile Approach to Adapting Dynamic Collaboration Support to Student Needs, International Journal of AI in Education special issue on Intelligent Support for Group Learning.
http://www.cs.cmu.edu/~dadamson/pubs/IJAIED2013_Adamson_Agents.pdf

Mayfield, E., Adamson, D., & Rosé, C. P. (2013). Recognizing Rare Social Phenomena in Conversation: Empowerment Detection in Support Group Chatrooms. Proceedings of the 51st Annual Meeting of the Association for Computational Linguistics, pages 104–113. http://www.aclweb.org/anthology/P/P13/P13-1011.pdf

Adamson, D., & Rosé, C. P. (2013). Academically Productive Talk: One Size Does Not Fit All. Proceedings of the 2nd Workshop on Intelligent Support for Learning in Groups. http://ceur-ws.org/Vol-1009/0309.pdf

Adamson, D., Bhartiya, D., Gujral, B., Kedia, R., Singh, A., & Rosé, C. P. (2013). Automatically Generating Discussion Questions. In Artificial Intelligence in Education (pp. 81-90). Springer Berlin Heidelberg. http://www.cs.cmu.edu/~dadamson/pubs/Adamson_GeneratingDiscussionQuestions_AIED2013.pdf

Mayfield, E., Adamson, D. & Rosé, C. P. (2012). Hierarchical Conversation Structure Prediction in Multi-Party Chat. Proceedings of the SIGDIAL 2012 Conference, Seoul, South Korea. The Association for Computer Linguistics 2012, pp 60-69.
http://www.aclweb.org/anthology-new/W/W12/W12-1607.pdf

Adamson, D., Jang, H., Ashe, C., Yaron, D., Rosé, C.P. (2013). Intensification of Group Knowledge Exchange with Academically Productive Talk Agents, Proceedings of the 10th International Conference on Computer Supported Collaborative Learning, Madison Wisconsin, July 2013.
http://www.cs.cmu.edu/~dadamson/pubs/2013_Adamson_APT_Intensification.pdf

Dyke, G., Adamson, A., Howley, I., & Rose, C. P. (2013). Enhancing Scientific Reasoning and Discussion with Conversational Agents, IEEE Transactions on Learning Technologies 6(3), special issue on Science Teaching, pp 240-247.
http://www.cs.cmu.edu/~dadamson/pubs/2012_AT_Journal_GD.pdf

Clarke, S., Chen, G., Stainton, K., Katz, S., Greeno, J., Resnick, L., Dyke, G., Howley, H., Adamson, D., Rose, C. P. (2013). The Impact of CSCL Beyond the Online Environment, Proceedings of Computer Supported Collaborative Learning
http://www.cs.cmu.edu/~dadamson/pubs/Clarke_APT_Classroom_CSCL2013.pdf

Yang, D., Sinha, T., Adamson, D., & Rose, C. P. (2013). Turn on, Tune in, Drop out: Anticipating student dropouts in Massive Open Online Courses, NIPS Data-Driven Education Workshop.
http://lytics.stanford.edu/datadriveneducation/papers/yangetal.pdf

Dyke, G., Mayfield, E., Howley, I., Adamson, D., Rose, C. P. (2013). Analysis of Discourse and the Importance of Time. 1st International Workshop on Discourse-Centric Learning Analytics (invited paper).

Beuth, J., Rose, C. P., Kumar, R., Adamson, D. (2012). Agent-Monitored Tutorials to Enable On-Line Collaborative Learning in Computer-Aided Design and Analysis, NSF EEC Awardees Conference. https://www.cmu.edu/cmites/pdfs/IMECE_2010.pdf

Adamson, D. & Rosé, C. P. (2012). Coordinating Multi-Dimensional Support in Conversational Agents, Proceedings of the 11th International Conference on Intelligent Tutoring Systems, LNCS Volume 7315, Springer-Verlag, pp 346-351. http://www.cs.cmu.edu/~dadamson/pubs/bazaarITS2012.pdf

Dyke, G., Howley, I., Adamson, D., Rosé, C. P. (2012). Towards Academically Productive Talk Supported by Conversational Agents, Proceedings of the 11th International Conference on Intelligent Tutoring Systems, LNCS Volume 7315, Springer-Verlag, pp 531-540.
http://perso.ens-lyon.fr/gregory.dyke/Dyke_et_al_its2012_camera.pdf

Mayfield, E., Adamson, D., Rudnicky, A., & Rosé, C. P. (2012). Computational Representation of Discourse Practices in Task-based Dialogue, ICIC 2012 Proceedings of the 4th ACM International Conference on Intercultural Collaboration, pp 67-76. http://www.cs.cmu.edu/~emayfiel/MayfieldICIC2012.pdf

Howley, I., Adamson, D., Dyke, G., Mayfiled, E., Beuth, J., & Rosé, C. P. (2012). Group Composition and Intelligent Dialogue Tutors for Impacting Students' Self-Efficacy, ITS 2012 Proceedings of the 11th International conference on Intelligent Tutoring Systems, Lecture Notes in Computer Science Volume 7315, Springer-Verlag, pp 551-556.
http://www.cs.cmu.edu/~emayfiel/application_papers/120113ITS12_ikh_07cpr.pdf

Mayfield, E., Garbus, M., Adamson, D., & Rose, C. P. (2011). Data Driven Interaction Patterns: Authority and Information Sharing in Dialogue, Proceedings of the AAAI Symposium on Building Representations of Common Ground with Intelligent Agents.
http://www.cs.cmu.edu/~emayfiel/MayfieldGarbusAdamsonRoseAAAI2011.pdf

Gianfortoni, P., Adamson, D. & Rosé, C. P. (2011). Modeling Stylistic Variation in Social Media with Stretchy Patters, in Proceedings of First Workshop on Algorithms and Resources for Modeling of Dialects and Language Varieties.
http://dl.acm.org/citation.cfm?id=2140539

PROJECTS

BAZAAR http://cs.cmu.edu/~dadamson/bazaar
Bazaar is a software architecture that supports multi-dimensional collaborative agents (eg, group tutors or discussion moderators) in a real-time chat environment. Bazaar agents have been deployed in classroom studies across the country.

LIGHTSIDE http://lightsidelabs.com
LightSide began as an open-source machine learning workbench for text analysis, and continues both in this form and as the foundation for a set of products that aim to support writing in the classroom.

SAMOSA http://bitbucket.org/askory/samosa
The open-source Samosa framework provides a django-like programming interface that allows rapid development of SMS and voice-powered mobile applications and pervasive games.

INTERESTS

Contra dancing, mead-making, cooking, hiking, biking, and viking.