

Danny Wyatt

Department of Computer Science & Engineering
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EDUCATION

Ph.D., University of Washington **expected 2009**

Computer Science and Engineering
Advisors: Jeff Bilmes and Tanzeem Choudhury

M.S., University of Washington **2005**

Computer Science and Engineering
Advisors: Henry Kautz and Tanzeem Choudhury
Qualifying Project: *Unsupervised Activity Recognition using Automatically Mined Common Sense*

B.A., Columbia University **1998**

English and Comparative Literature, *cum laude*
Honors: George W. Hibbit Memorial Scholar 1996-98, Deans List all semesters.

RESEARCH EXPERIENCE

Research Assistant **2005 – Present**

University of Washington
Managed a year-long study for sensing and modeling human social behavior. Co-ordinated Human Subjects Department approval, implemented sensing software with resource-constrained real-time audio processing, instrumented 25 subjects with wearable sensor platforms, collected and analyzed data.

Research Intern **Summer 2006**

Intel Research Seattle
Developed methods for modeling conversations using privacy-sensitive audio data.

Research Intern **Summer 2004**

Intel Research Seattle
Developed a system that learns models of human activities from text on the web and uses those models to recognize activities performed in the real world. The system can find arbitrary activity descriptions, learn the objects used to perform those activities, estimate an object's probability of use during an activity, and automatically customize its models for a specific person or environment.

Research Assistant **2004**

University of Washington
Implemented statistical classification algorithms for determining whether product reviews are "pro" or "con," explored feature selection to improve such classification and methods for automatically finding product reviews on the web.

Student Project **2003**

Natural Language Processing Group, Columbia University
Explored heuristic methods for: simultaneously merging and de-noising ontologies; determining semantic relations between nouns within a noun phrase; and using general

ontologies to disambiguate noun senses in specialist (e.g. medical) corpora.

TEACHING

Teaching Assistant

Fall 2004

CSEP573: Master's level introduction to artificial intelligence.

Head Teaching Assistant

Spring 2004

CSE143: Second course in a two course undergraduate introduction to programming sequence.

Teaching Assistant

Fall 2003

CSE143

PUBLICATIONS

Danny Wyatt, Tanzeem Choudhury, and Jeff Bilmes.

"Conversation Detection and Speaker Segmentation in Privacy-Sensitive Situated Speech Data."

In *Proceedings of Interspeech 2007*. August, 2007.

Danny Wyatt, Tanzeem Choudhury, and Henry Kautz.

"Capturing Spontaneous Conversation and Social Dynamics: A Privacy Sensitive Data Collection Effort."

In *Proceedings of the 32nd IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP-07)*. April, 2007.

Danny Wyatt, Tanzeem Choudhury, Jeff Bilmes, and Henry Kautz.

"A Privacy-Sensitive Approach to Modeling Multi-Person Conversations."

In *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI-07)*. Hyderabad, India. January, 2007.

Tanzeem Choudhury, Matthai Philipose, **Danny Wyatt**, Jonathan Lester.

"Towards Activity Databases: Using Sensors and Statistical Models to Summarize People's Lives."

IEEE Data Engineering Bulletin. 29(1):49–56. March, 2006.

Danny Wyatt, Matthai Philipose, and Tanzeem Choudhury.

"Unsupervised Activity Recognition Using Automatically Mined Common Sense."

In *Proceedings of the 20th National Conference on Artificial Intelligence (AAAI-05)*. Pittsburgh, Pennsylvania, July 2005.

Daniel Wilson, **Danny Wyatt**, and Matthai Philipose.

"Using Context History for Data Collection in the Home."

In *Proceedings of PERVASIVE 2005, Workshops: Exploiting Context Histories in Smart Environments*. Munich, Germany, May 2005.

TALKS,
POSTERS

Danny Wyatt, Tanzeem Choudhury, Henry Kautz, James Kitts.

"Creating Dynamic Social Network Models from Sensor Data."

Talk and abstract in *International Sunbelt Social Network Conference*. April 26, 2006.

"Real-World Social Computing."

Invited talk for UW Women in CSE. February 14, 2006.

Danny Wyatt, Tanzeem Choudhury, Henry Kautz, Dieter Fox.

"Creating Dynamic Social Network Models Using Sensor Data."

Poster at *NIPS-05 Workshop on Recognition and Discovery of Activities and Interac-*

tions. December 10, 2005.

“Unsupervised Activity Recognition Using Automatically Mined Common Sense.”
Invited talk for UW KnowItAll Group. July 17, 2005.

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| AWARDS | IJCAI Student Travel Grant 2007 | |
| SERVICE | UW CSE Graduate Admissions Committee | 2006–2007 |
| | UW CSE Faculty Recruiting, student host | Winter 2006 |
| | UW CSE Grad Student Seminars, organizer (“How to Pass Generals”) | Winter 2006 |
| | UW CSE Grad Student Seminars, speaker (“How to Pass Quals”) | Winter 2006 |
| | UW CSE Prospective Students Recruiting Committee | Winter 2005 |
| | UW CSE Prospective Students Recruiting Committee | Winter 2004 |
| INDUSTRY EXPERIENCE | Lead Technologist Ericsson Mobility World North America Developed prototype applications, SDKs, and reference software for emerging wireless and mobile computing technologies. Explained those technologies to the press and gave technical talks to educate developers. | 2000 – 2003 |
| | Lead Developer sputnik7.com Designed and implemented software for describing, storing, querying, and presenting audio and video; user management; and ecommerce. Coordinated implementation among staff engineers and contractors. | 1999 – 2000 |
| | Senior Developer Siegel and Gale Designed and implemented web-based applications for Fortune 500 companies (Kodak, Citibank, Lucent, Toys’R’Us, American Express, and others). Managed projects (and clients) for entire life cycle, from requirements gathering through release and maintenance. | 1996 – 1999 |