

Joshua S. Albrecht

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Education:

Master's in Computer Science, University of Pittsburgh, August 2008
Graduated with a cumulative GPA of 3.85

B.S. in Computer Science and Mathematics, University of Pittsburgh, August 2007
Graduated Summa Cum Laude with a cumulative GPA of 3.91

Honors:

- Department of Computer Science Honor Roll 2005, 2006
- University Honors College Academic Scholarship
- Dean's List

Work Experience:

- **Research Assistant**, May 2006 to August 2008. University of Pittsburgh. Pittsburgh, PA. Utilized machine learning techniques to develop automatic metrics for machine translation evaluations. Designed and implemented the experimental framework. Conducted comparison studies for the developed metrics. Presented results at an international conference. Designed and built interactive translation interface. Conducted user studies to evaluate effectiveness of the interface.
- **Lead Programmer**, October 2004 to January 2006. MVP Interactive. St. Louis, MO. Programmed numerous features for a modern multiplayer golf game. Communicated with remote team members to accomplish all tasks and meet deadlines. Provided technical advice based on over 5 years of personal experience programming with the software being used.
- **Intern**, June 2002 to August 2002. Eastman Kodak. Rochester, NY. Worked with Excel and Visual Basic to create software for post-processing large quantities of data generated by CAD simulations. Was responsible for communication with future users to determine needs, design of the software, and implementation of a prototype.

Publications:

- "[A Re-examination of Machine Learning Approaches for Sentence-Level MT Evaluation](#)", by Josh Albrecht and Rebecca Hwa. Published in the Proceedings of ACL 2007.
- "[Regression for Sentence-Level MT Evaluation with Pseudo References](#)", by Josh Albrecht and Rebecca Hwa. Published in the Proceedings of ACL 2007.
- "[The Role of Pseudo References in MT Evaluation](#)", by Josh Albrecht and Rebecca Hwa. Published in Proceedings of The Third Workshop on Statistical Machine Translation, 2008
- "[The Chinese Room – Understanding and Correcting Machine Translation](#)" by Josh Albrecht, Rebecca Hwa, and Elisabeta G. Marai. Published in Proceedings of IEEE Information Visualization Conference, 2008
- "Regression for Machine Translation. Evaluation at the Sentence Level" by Josh Albrecht and Rebecca Hwa. To appear in Machine Translation.

Presentations:

- "Regression for Sentence-Level MT Evaluation with Pseudo References" Presented at ACL 2008, Prague

Course Projects:

- Master's Project. 2008. [Extending Anchored Learning to Machine Translation Evaluation](#)
Performed a series of error analysis experiments on a complex SVM model of machine translation quality.
- Information Visualization Project. 2008. [Visualizing and Correcting Machine Translation](#)
Presented improvements to ongoing work on an interface to allow monolingual speakers to understand machine translation even in the presence of severe errors by giving the users access to additional resources (such as syntax, similar examples, and a bilingual dictionary)
- Machine Translation Project. 2007. [Applying Referenceless MT Evaluation Metrics to a Multi-Engine MT System](#)
Applied previous work on machine translation evaluation without references to the problem of selecting the best translation in the context of a multi-engine machine translation system.
- More available here: <http://www.cs.pitt.edu/~jsa8/projects.htm>

Relevant Skills:

- Extensive programming experience with Perl, Java, Python and C++ languages
- Also fluent in C, PHP, Javascript, HTML/CSS, SQL and LUA
- Experience with MATLAB, Linux, Windows/Office and LaTeX