

Kyle Kurz

Masters student in Computer Science at Ohio University

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Education

- 2008-Present *M.Sc. in Computer Science*, Ohio University, USA (exp. date of completion: Spring 2009)
Research Topics: *High performance computing, Bioinformatics, Parallelization, Software Engineering*
Thesis Title: *OWEF: The Design and Implementation of a High-throughput, Highly-scalable Framework for Bioinformatics Research*
Advisor: Dr. Lonnie Welch
- 2007 *B.Sc. in Electrical Engineering with Computer Engineering Focus*, Ohio University, USA
- 2003 *High School Degree*, Greenville Senior High, Ohio, USA

Teaching Experience

- 2008 Introduction to Computer Science II, Teaching Assistant, Ohio University
Grade projects, aid in class discussions, administer examinations
- 2008 Data Structures, Teaching Assistant, Ohio University
Grade projects, aid in class discussions
- 2008 Software Engineering, Teaching Assistant, Ohio University
Grade projects, aid in and facilitate class discussions, present materials, administer examinations

Professional Experience

2008-present **Lead software engineer**, Ohio University, Supervisor: Dr. Lonnie Welch, Dr. Frank Drews. Parallel and high performance design engineer

Project lead: Open-Motif (<http://code.google.com/p/open-motif>)

Project member: WordSeeker (<http://www.word-seeker.org>)

2009 **Summer Intern**, Ohio State University, Grotewold Lab, Supervisor: Dr. Erich Grotewold, Dr. Lonnie Welch. Bioinformatics intern in the *Arabidopsis thaliana* research lab at Ohio State University.

Project member: AGRIS (<http://arabidopsis.med.ohio-state.edu/words/>)

2008 **Summer Intern**, Ohio Supercomputer Center, Supervisor: Dr. Dave Hudak, Dr. Lonnie Welch. Implementation of WordSeeker codebase in OSC's high-performance environment.

Project member: WordSeeker (<http://www.word-seeker.org>)

Awards and Honors

2009 Highly Accessed Designation: Lichtenberg J., Yilmaz A., Welch J.D., **Kurz K.**, Liang X., Drews F., Ecker K., Lee S.S., Grotewold E., Welch L.R., The Word Landscape of the non-coding segments of the *Arabidopsis thaliana* genome, BMC Genomics, 2009, 10: 463

Third Place, Paper Awards, Ohio Collaborative Conference on Bioinformatics, 2009, Cleveland, Ohio (USA)

Honorable Mention, Poster Awards, Ohio Collaborative Conference on Bioinformatics, 2009, Cleveland, Ohio (USA)

2008-present Choose Ohio First Scholarship recipient, Ohio University

2003-2007 Ohio Board of Regents Scholarship recipient, Ohio University

Invited Talks

Lichtenberg J., Alam M., Bitterman T., Drews F., Ecker K., Elnitski L., Evans S., Grotewold E., Gu D., Jacox E., **Kurz K.**, Lee S.S., Liang X., Majmudar P.M., Morris P., Nelson C., Stockinger E., Welch J.D., Wyatt S., Yilmaz A., Welch L.R., Construction of Regulatory Encyclopedias of Genomes: Strategies and Case Studies, Annual PMBB Meeting, April 2009, Columbus, Ohio (USA)

Peer-Reviewed Journal Publications

Lichtenberg J., Yilmaz A., Welch J.D., **Kurz K.**, Liang X., Drews F., Ecker K., Lee S.S., Grotewold E., Welch L.R., The Word Landscape of the non-coding segments of the *Arabidopsis thaliana* genome, BMC Genomics, 2009, 10: 463, Pubmed: 19814816

Lichtenberg J., Jacox E., Welch J.D., **Kurz K.**, Liang X., Yang M.Q., Drews F., Ecker K., Lee S.S., Elnitski L.E., Welch L.R., Word-based Characterization of Promoters involved in the Human DNA-repair Pathways, BMC Genomics 2009, 10 (Suppl 1): S18, Pubmed: 19594877

Peer-Reviewed Conference Publications

Kurz K., Lichtenberg J., Nau L., Drews F., Welch L.R., An Open Source Framework for Bioinformatics Word Enumeration and Scoring, Bioinformatics Open Source Conference (BOSC), 2009, Stockholm (Sweden)

Lichtenberg J., Alam M., Bitterman T., Drews F., Ecker K., Elnitski L., Evans S., Grotewold E., Gu D., Jacox E., **Kurz K.**, Lee S.S., Liang X., Majmudar P.M., Morris P., Nelson C., Stockinger E., Welch J.D., Wyatt S., Yilmaz A., Welch L.R., Construction of Regulatory Encyclopedias of Genomes: Strategies and Case Studies, Proceedings of the Ohio Collaborative Conference on Bioinformatics, IEEE Computer Society press, June 2009

Non Peer-Reviewed Poster Publications

Lichtenberg J., Alam M., Bitterman T., Drews F., Ecker K., Elnitski L., Evans S., Grotewold E., Gu D., Jacox E., **Kurz K.**, Lee S.S., Liang X., Majmudar P.M., Morris P., Nelson C., Stockinger E., Welch J.D., Wyatt S., Yilmaz A., Welch L.R., Construction of Regulatory Encyclopedias of Genomes: Strategies and Case Studies, BioOhio, 2009, Dublin, Ohio (USA)

Lichtenberg J., Yilmaz A., Welch J.D., **Kurz K.**, Liang X., Drews F., Ecker K., Lee S.S., Grotewold E., Welch L.R., The Word Landscape of the Non-Coding Segments of the Arabidopsis thaliana Genome, Ohio Collaborative Conference, 2009, Cleveland, Ohio (USA)

Drews F., Ecker K., **Kurz K.**, Lee S., Liang X., Lichtenberg J., Welch J., Welch L., WordSeeker: A High Performance Bioinformatics Pipeline for Computational Regulatory Genomics, Ohio Plant Biotechnology Consortium, 2008, Columbus (USA)

Drews F., Ecker K., **Kurz K.**, Lee S., Liang X., Lichtenberg J., Welch J., Welch L., WordSeeker: A High Performance Bioinformatics Pipeline for Computational Regulatory Genomics, BioOhio, 2008, Dublin (USA)

Lichtenberg J., Jacox E., Welch J., **Kurz K.**, Yang M.Q., Ecker K., Drews F., Elnitski L., Welch L., Word-based characterization of promoters from human DNA-repair pathways, Genome Informatics, 2008, Hinxton (UK)