

OHSU

Summer Undergraduate Research Opportunity in Computer Science

Spend your summer in the beautiful Portland metropolitan area.

Apply your knowledge, experience the creativity of research, increase your professional competence, and engage in tackling real-world problems through the summer research opportunity in computer sciences at OHSU. Several National Science Foundation funded opportunities exist for summer research in speech, natural language, and other sequence processing problems in the Center for Spoken Language Understanding (CSLU), part of the Division of Biomedical Computer Science at OHSU. Potential projects include (but are not limited to)

- Multilingual speech recognition: Improve stochastic language models for speech recognition systems in languages other than English, such as Chinese or Arabic
- Brain-computer interfaces: Investigate new models and algorithms for sequencing stimuli within a typing application for paralyzed individuals
- Spoken language assesment: New algorithms for extracting characteristics of spoken language to improve automated neuropsychological assessment
- Natural language dialogue modeling: Using machine learning to build a dialogue manager
- Semantic role labeling: Automatically finding who did what to whom in raw text
- Spoken term detection: Finding instances of a query term in a large collection of speech
- Text-to-speech synthesis: Personalization of a speech synthesizer using a novel Asynchronous Interpolation Model
- Affect Recognition: Developing machine learning algorithms to recognize affect displayed in a speaker's voice

The positions include an NSF-REU stipend for 8 weeks during the summer. Research supervision will be available to continue the research during the academic year, and publications are expected to result from the work achieved.

We encourage students majoring in computer science, mathematics or related disciplines to apply. Juniors who have taken courses in statistics, probability and/or linear algebra will be given preference. NSF funding only available to US citizens and permanent residents. To apply, send your curriculum vitae and contact information for two references before April 1, 2009 to roark@cslu.ogi.edu. Applications will be processed as they are received. For more information about the research programs, visit faculty webpages for Heeman, Kain, Roark, Shafran and Sproat at:

<http://www.ogi.edu/csee/people/>

