

Intern with GeoStat (Geometry and statistics in acquisition data), INRIA Bordeaux-Sud-Ouest (2010, 2011).

Research and contributions

- Review and implementation of existing text-independent phoneme segmentation algorithms.
- Conceptualization and development of new text-independent phoneme segmentation methods based on speaker turn detection algorithms and hybridization with non-parametric methods.
- Implementation of Voice Activity Detection standards and adaptation of TIMIT database for VAD, including methods for evaluating performance of standard and new VAD algorithms.
- Evaluation of above methods to provide basis for comparison for other methods under development at GeoStat.
- Previous work in other areas:
 - Research in breaking chaos-based secure optical communications. Examining attractors, study of chaotic dynamics for development of a method for decrypting on-off phase shift keyed chaos-encrypted data.
 - Research in optical fiber bragg gratings for sensing applications. Experimental setup, data collection and analysis.

Conference publications

- **Winebarger, J., Daoudi, K., Yahia, H., Improving SVF with DISTBIC for Phoneme Segmentation**, *SPECOM 2011*. September 2011.
- **Winebarger, J., Locquet, A., Citrin, D.S., Breaking On/Off Phase-Shift Keying in Optical Chaos-Based Cryptosystems**, *Photonics Europe, 2010. Proceedings SPIE*, April 2010 .
[SPIE](#) .
- **Winebarger, J., Tait, G., Demonstration of a high-resolution optical interrogation method for sampled fiber Bragg sensor**, *SoutheastCon, 2007. Proceedings IEEE*, March 2007.
[IEEEXplore](#) .