

Stefan T. Tomic

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Education

June 2003 *M. A. Electro-Acoustic Music, Dartmouth College.* Hanover, NH.
Master's Thesis: Physical Modeling Applications for the Synthesis of a Central Javanese Rebab.
June 1994 *B.S. Computer Science, University of California, Santa Barbara.* Goleta, CA.

Programming Experience

Matlab, PHP, Perl, HTML, Java, C++

Teaching Experience

Sept. 2003 – June 2004 *Tutor.* Computer Music Synthesis. Music Dept., Dartmouth College. Hanover, NH.
Jan. 2002 – Mar. 2002 *Teaching Assistant.* Computer Music. Music Dept., Dartmouth College. Hanover, NH.

Employment

Associate Specialist, University of California, Davis, Center for Mind and Brain.

August 2004 – Present (Full-time)

July 2004 (Full-time volunteer)

Involved in various ongoing projects in a music cognition research lab supervised by Dr. Petr Janata. Co-designed and independently developed an experiment presentation system called Ensemble (<http://atonal.ucdavis.edu/ensemble>). The system incorporates a MySQL database, PHP web interfaces, and stimulus presentation via Flash and Java audio components. Co-developed Matlab scripts to facilitate data retrieval and analysis of Ensemble data. Currently researching and developing techniques in Matlab for automatic rhythm classification of musical stimuli and participant tapping data.

Research Specialist, Dartmouth College, Department of Psychological and Brain Sciences.

July 2003 – June 2004 (Full-time)

Research position under the supervision of Dr. Petr Janata. Implemented a boundary element model, using EMSE and Freesurfer, for estimating sources of electrical activity on the brain and scalp surfaces. Developed a tool in Matlab for visualizing and manipulating data for the model.

Software Engineer, Accentus, LLC, Hanover, NH.

Oct. 2003 – June 2004 (Part-time Contract Employee)

Co-developed an application for auditory perception of stock market data. The software was developed in Java in conjunction with the JSyn and JMSL APIs.

Programmer Analyst, University of California, Berkeley, Dept. of City and Regional Planning.

Apr. 1999 - July 2001 (Full-time)

Managed a graduate student computer lab for approximately 150 graduate students. Maintained a network of 60 workstations for faculty, graduate students, researchers, and staff. Managed the department's computing budget, software standards and software licensing. Organized and taught computer skill workshops for graduate students.

Systems Analyst/Computer Resource Specialist, University of California, Santa Cruz.

Sept. 1994 - Apr. 1999 (Full-time)

Held positions in the Admissions Department, Housing Department, and Humanities Division. Administered Microsoft Windows networks, Macintosh LANs, and Novell NetWare networks. Planned and installed a Novell NetWare network. Planned and performed computer upgrades. Provided computer support for faculty, graduate students, and staff. Supervised a help-desk assistant.

Publications

Janata, P., Tomic, S. T., & Rakowski, S. K. (2007). Characterization of music-evoked autobiographical memories. *Memory*, 15(8), 845–860.

Tomic, S.T. & Janata, P. (2007). Ensemble: A Web-Based System for Psychology Survey and Experiment Management. *Behavior Research Methods*, 39(3), 635–650.

Conference Presentations

Papers

Tomic, S.T. (2003). A Physical Model of the Rebab. Society for Electro-Acoustic Music in the United States, Tempe, AZ.

Posters

Janata P., Tomic, S.T., & Haberman J. (2007). Getting in “the groove” while tapping. Society for Music Perception and Cognition, Montreal, Canada.

Janata, P. & Tomic, S.T. (2006). Brain networks underlying the retrieval and experience of music-evoked autobiographical memories. Society for Neuroscience Abstracts.

Janata, P. & Tomic, S.T. (2005). The implications of baseline correction practices in the analysis of event-related potential (ERP) topographies. 11th annual meeting of the Organization for Human Brain Mapping, Toronto, Canada.

Research Interests

Digital signal processing, rhythm perception, physical modeling of musical instruments, source localization modeling.

Musical Performance

Classical Guitar. 1993 - 2003. Repertoire included works by Ponce, Llobet, de Falla, Villa-Lobos, and Lou Harrison.

Javanese Gamelan. 1994 - Present. Performed with various gamelan ensembles. Studied kacapi (West Javanese zither) from 1996-2000.