

Yelena Yasinnik

355 Massachusetts Avenue, Cambridge, MA 02139
(617) 331-8676 yelena@mit.edu

Education	Massachusetts Institute of Technology , Cambridge, MA Candidate for Bachelor of Science degree in Mathematics, GPA 4.2/5.0	June '05
	Brooklyn Technical High School , Brooklyn, NY Math Science Institute major	June '01
Work Experience January '02 to Present	Research Lab of Electronics, Speech Group – MIT <i>Undergraduate Researcher</i> . Labelled intonation in radio, lab-recorded, and spontaneous speech using Tones and Break Indices (ToBI) system. Labelled in Anvil hand gestures for preparation, stroke, hold, and relaxation, as well as labelled gestures of the head and face. Currently collaborating in research on relationship between gestures and speech, investigating alignments of “hit-like” gestures with pitch accents in speech, as well as the relationship between phrasing in speech and in hand gestures. Presented preliminary findings of this research in a four-page paper and in poster session at the 75 th <i>Annual Conference of Acoustical Society of America</i> in New York, as well as at <i>From Sound to Sense: 50+ Years of Discoveries in Speech Communication</i> conference at MIT. First author of a four-page paper on gesture marking of disfluencies, recently submitted to <i>Disfluencies In Spontaneous Speech '05</i> conference.	Cambridge, MA
	Summer '04 Simmons College , Workshop on ambiguities and inconsistencies in ToBI <i>Technical Assistant</i> . Worked in small group to prepare content of 3-day workshop for prominent researchers in Phonology and Psycholinguistics who use ToBI to capture intonation and phrasing of speech. Used various databases (e.g. MapTask, CallHome) of labelled speech to collect examples of labelling difficulties. Met with workshop administrators weekly to classify these examples, organize them into a database, and plan workshop presentations. Provided technical assistance at workshop presentations, kept transcripts of proceedings, and contributed to discussion.	Boston, MA
	Summer '03 Cornell University , Research Experience for Undergraduates <i>Undergraduate Researcher</i> . Worked in a small group on project using a nonstandard approach to look for new partition identities. Used knowledge of complex dynamics to analyze properties of fractals such as the Mandelbrot set and to express them as a number theoretic identity. Made biweekly presentations as well as a final presentation on results of the project for the program and the Cornell math department.	Ithaca, NY
	Summer '01 and Summer '02 City College of New York , Scholars Program for High School students <i>Teaching Assistant</i> . Assisted in coordination of program for gifted New York City high school students during initial two years of the program. Helped manage registration and general paperwork, provided academic counseling, taught advanced problem solving class, trained students for math competitions.	New York, NY
Publication	Yasinnik, Yelena, Margaret Renwick & Stefanie Shattuck-Hufnagel. 2004. The Timing of Speech-Accompanying Gestures with Respect to Prosody. <i>From Sound to Sense: 50+ Years of Discoveries in Speech Communication</i> , 11-13 June 2004, Cambridge, MA. < http://www.rle.mit.edu/soundtosense/conference/pdfs/fulltext/Friday%20Posters/FA-Yasinnik-STS-MAC.pdf >.	
Computer Skills	Praat, Anvil, Xwaves, iMovie, MS Word, Excel, and PowerPoint, Adobe Illustrator, Internet Experience with, XML, Scheme, MatLab, C++, Emacs, LaTeX, general computer algorithms, Windows, MacIntosh, Linux	
Language Skills	Fluent in English, Russian, Ukrainian, proficient in French	
Distinctions	MIT Dean's List, Intel Science Talent Search semifinalist, New York MathFair gold medalist, high scorer in the New York State Math League	

Skills

(1) Combined Gesture-Speech Analysis and Synthesis

- Familiarity with gesture research literature about phrasing in gesture, gesture units, and relationship between gesture and speech;
- Experience preparing a database;
- Experience labelling head, hand, and face gestures of 4 different speakers;
- Experience with Anvil interface for gesture labelling;
- Experience labelling lab-recorded, radio, and spontaneous speech;
- Experience with Praat interface for speech labelling;
- Tones and Break Indices labelling system of prominence and phrasing in speech;
- Experience analyzing data in Excel and using statistical tests of significance.

(2) Speech Conductor

- Coursework in understanding, designing, proving, and analyzing performance and efficiency of computer algorithms;
- Coursework in combinatorics and discrete mathematics;
- Experience labelling landmarks using evidence in spectrogram and waveform of a speech sample;
- Some experience with programming in Scheme, C++, and XML;
- Experience labelling head, hand, and face gestures of 4 different speakers;
- Experience with Anvil interface for gesture labelling.

(3) A Multimodal (Gesture+Speech) Interface for 3D Model Search and Retrieval Integrated in a Virtual Assembly Application

- Experience labelling head, hand, and face gestures of 4 different speakers;
- Experience with Anvil interface for gesture labelling;
- Experience labelling lab-recorded, radio, and spontaneous speech;
- Familiarity with gesture research literature about phrasing in gesture, gesture units, and relationship between gesture and speech;
- Coursework in understanding, designing, proving, and analyzing performance and efficiency of computer algorithms.