NATHAN TARRH

SOFTWARE DEVELOPER & STUDENT

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Education

Tufts University
May 2014 (expected)
GPA: 3.50

Bachelor of Science in Computer Science

Selected CS coursework: Algorithms, Data Structures, Machine Structure & Assembly Language Programming, Programming Languages, Advanced Functional Programming, Operating Systems

Selected other coursework: Advanced Electronic and Digital Media, Entrepreneurial Leadership, Experimental Film: Aesthetics and Production, Postmodernism and Film, Technological Tools for Learning

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Experience

Tufts Center for Engineering Education and Outreach   May 2011—present
Research and Teaching Assistant

Lab for Playful Computation: developing BlockyTalky, a platform for networked, tangible creations using the Raspberry Pi and Google's Blockly programming editor.

Integrating Engineering and Literacy: designed and devloped curricula and workshops for engineering education in elementary schools.

Harvey Mudd College   June 2013—August 2013
Research Assistant

Intelligent Music Software: implemented context-free grammar parsing (CYK algorithm) to create higher-order roadmaps for jazz chord progressions. Optimized algorithmic matching for music with 100-150% speedup.

WMFO Medford — 91.5 FM   February 2012—present
Software Development

Developed: web scraper to find lyrics and flag explicit tracks (digital catalog of ~250 thousand songs); taste profiler using playlist history and the Echo Nest API to recommend radio shows to listeners. Responsible for server administration of catalog, station wiki, and public website.

Technical

Languages:	C/C++	Python
	Java	JavaScript
Frameworks:	Node.js/Express	Flask
Other:	*nix toolkit	SVN/Git