Erek Speed

Sunnyvale, CA email: melink14@gmail.com

Objective   To confront and defeat interesting and challenging problems.

Education   **Massachusetts Institute of Technology (MIT)**   Cambridge, MA
Bachelor of Science in Computer Science and Engineering. June 2009
Master of Engineering. June 2012.
Relevant Coursework: Computer Programming, Computer Architecture, Software Engineering Lab, Artificial Intelligence, Algorithms, Operating Systems, Performance Engineering, Computer Graphics, Linear Algebra, Microcontrollers, Machine Learning, Distributed Systems

Work Experience **Google**   Mountain View, CA
Software Engineer   Summer 2012 - Present
Design and implement new features in various Google products using Java and Javascript. Prepare and present talks on project progress.

MIT   Cambridge, MA
Minority Introduction to Engineering and Science (MITES) Head TA Spring '11 - Summer '11
Arrange logistics for MITES, a summer program for 80 high school students. Oversee a team of 19 regular teaching assistants in their role teaching and supporting said students. Developed software in Flex for sorting students into elective classes to maximize student happiness but satisfy constraints.

Square Enix   Tokyo, Japan
Researcher   Fall 2009 - Spring 2011
Explored new game related technologies. Extended high level parallel APIs to game/graphics domain. Developed learning algorithm for Mario. See below for publications. Used C++ , Java, Emacs, and Perforce.

MIT   Cambridge, MA
MITES TA, Digital Design   Summer '06,'07,'09
Taught classes of 20 high school students key web design skills, including: HTML, CSS, PHP, MySQL, Flash, and ActionScript. Taught iPhone development. Guided teams of students with widely differing skills and backgrounds to produce quality websites for their final competition.

Square Enix   Tokyo, Japan
Programming Intern   Summer 2008
Implemented a real time ray tracer in Intel's new API Ct and C++ . Created presentations on weekly progress. Used Visual Studio and Perforce. Gave hour long presentation on my work upon completing internship.

MIT-Singapore GAMBIT Game Development Lab   Cambridge, MA
Programmer, Technical Lead   Fall 2007-Spring 2008
Programmed a game on Valve's Source engine in order to test its viability as a platform. Led a team of 2 programmers in implementing a game on Playfirst's Playground SDK. Used C++ , Visual Studio, and Perforce.

MIT Information Services and Technologies   Cambridge, MA
Tester, Software Release Team   Fall 2006 - Spring 2008
Coordinated with various product release teams to provide timely test results of new software to be released to MIT on all common operating systems.

Publications   **Improving program productivity, performance and portability**   SIGGRAPH 2010
through a high level language for graphics and game development
Poster Authors: James R. Geraci and Erek R. Speed

Evolving a Mario Agent Using Cuckoo Search and Softmax   GIC 2010
Heuristics
Paper Author: Erek R. Speed

Other Projects **Rikaikun** Winter 2009

Converted translation program Rikaichan for use with the Chrome browser. Provides definitions of Japanese words upon hovering over them.

Qualifications *Languages*: C++ , Java, Python – Intermediate Japanese

Libraries and Tools: Emacs, STL, LaTeX, Microsoft Visual Studio, GCC, GDB, Eclipse, SVN, Perforce, Git

Activities **Teaching Assistant, Introduction to AI** Fall 2012

Assisted teaching 260 undergraduates an introduction to theories and techniques in artificial intelligence. Taught 3 weekly sections of 5-15 students. Organized the review and release of the classes programming assignments.

MIT Parliamentary Debate Team Fall 2005 - Spring 2009

Competed in competitions with other Universities such as Harvard, Princeton and Yale. Organized and ran a tournament for 250 participants.

Lab Assistant, Software Development in Java Spring 2008

Assisted students with software development labs and assignments in MIT's primary software development class.

Intro to C++ Lab Assistant Winter 2008

Helped MIT undergrads through various beginner level C++ projects.

Interests Games, Japanese Animation, Programming, Reading, Running