

# Jeremy Goldman

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## EDUCATION

Tufts University (Medford, MA) 3.51 GPA – Compsci GPA: 3.67, Econ GPA: 3.7

Bachelor of Science in Computer Science and Economics, class of 2015

## SKILLS

- Languages: C++, C, Matlab, Python, Java, Html, CSS, Javascript, LaTeX, JSON, Assembly, Erlang, Scheme, ML
- Experience coding in a Linux, Windows, and Mac environment
- Advanced piano playing, detailed knowledge of music theory

## RELEVANT PROJECTS AND COURSEWORK

- SudokuSolver: Finds the solution to any solvable Sudoku puzzle. It is comprised of a 3d list with the board (2d) and possible spots (3). First knocks off impossible values, then non-deterministically tests available spaces. May be in NP, working on a P solution. Python.
- PacketAlarm: programmed an alarm system that alerts to the user when it detects an attacking Xmas or Null port scan, and can also analyze a web server log for NMAP scans & Shellcode insertion. Utilized the PacketFu gem to extract fields of TCP and UDP packets. Written in Ruby.
- Image Compression: Compresses an image by converting RGB pixels to vcs and then encoding the values of each 4-pixel block into a 32 bit integer using bit manipulation. Can also decompress such files and write the resulting image to stdout, depending on command line arguments. Code in C.
- Beast: name of the computer I built using parts off of Amazon and newEgg.
- Courses: Machine Structure & Assembly Level Programming, Data Structures, Computation Theory, Analysis of Algorithms, Linear Algebra, Web Programming, Concurrent Programming, Functional Languages, Operating Systems, Intro to Computer Security

## PROFESSIONAL EXPERIENCE

**Lincoln Labs**, Lexington, MA, *Software Developer*, June 2014-August 2014

- Coded a GUI to write large target configuration files for the radar simulation system (RSS)
- Calculate point localization in three dimensional space and time, involving advanced trigonometry and the use of quaternion matrix operations
- Design a front-end user interface that is easy to understand and allows flexibility of targets' radar-cross-sections, interference configurations, and flight paths.
- Write a tool that can write code, which must be bug-free in order to be interpreted by the RSS
- Present design choices to senior engineers, implementing suggested add-ons and functions

**TechBreakfast**, Baltimore-Washington Area, *Conference Assistant*, May 2013 - August 2013

- Network with technology-based entrepreneurs in the Baltimore-Washington area
- Explore the interface of Wirecast software, constantly learning how to perform new functions
- Record and stream presentations, by operating multiple webcams, audio inputs and computer screens
- Build tutorials for future streamers on how to use Wirecast

**Tufts Music Department**, Medford, MA, *Piano Accompanist*, September 2011-present

- Sight-read or play prepared background piano during vocal lessons and performances
- Determine what pieces would be best for students as well as how they should work on such pieces