Michael Tran

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https://github.com/trankmichael

Education

- **Tufts University** — Somerville, MA
  B.S. Computer Science — B.S. Mathematics GPA: 3.4 — *August 2012 - May 2016*
  - **Computer Science:** Algorithms, Programming Languages, Web Programming, Computer Security, Machine Structure and Assembly Language, Data Structures, Digital Logic Circuits, Theory of Computation
  - **Mathematics:** Real Analysis, Linear Algebra, Discrete Mathematics, Calculus
  - **Economics:** Financial Accounting, Principles of Economics

Experience

- **Tufts Enigma Magazine for Data Science and Computing** — Medford, MA
  Staff Writer — *February 2015 – Current*
  - publish weekly challenge problems on current topics in computing
  - write weekly tutorial articles outlining helpful skills for other students
- **Star Bright Cleaners** — Las Vegas, NV
  Front Desk Clerk — *June, 2014 – August, 2014*
  - Processed and recorded cleaning orders
  - Effectively handled customer issues and transactions
  - Balanced cash registers at the end of each business day
- **Tufts University (Computer Science Department)** — Medford, MA
  Teaching Assistant — *January. 2014 – June, 2014*
  - Worked directly with and assisted students during weekly office hours
  - Graded and debugged student submissions, projects, and design documents
  - Taught weekly labs where students practiced programming skills such as sorting, recursion, and dynamic memory
- **Hodgdon Good-To-Go** — Medford, MA
  Food Server — *August 2013 – December 2013*
  - Prepared, assembled, and served meals in dining hall for both faculty and students
- **Irvine Education Academy** — Irvine, CA
  Instructor — *June 2011 - Sept. 2011*
  - Organized daily instructional activities
  - Graded student progress and assignments
  - Met with parents about students when necessary

Skills

Technologies: C/C++, Ruby, LaTeX, Java, Javascript, HTML5, jQuery, Node.js, CSS, VBA, ML, NoSQL (MongoDB)

Computer and OS: Linux/Unix/Embedded Linux, Vi/Vim, Windows, VMWare, MATLAB

Projects

Network Alarm: This alarm monitors either a live stream of network packets or an Apache web log for a variety of incidents. Implemented in Ruby, the program detects port scanning attacks and leaked credit card information in a live network stream. Given a web log, the program detects NMAP scans, HTTP error codes, embed shellcode, and leaked credit card information.

Mark and Sweep Garbage Collector: A mark-and-sweep garbage collector that was implemented for a Scheme interpreter and written in C.

Running Champ: This web application allows users to compete with other local users and quantitatively track their running progress. The application is published to appspot and records run data using the Google Maps API. User logins are handled using tokens and a two key encryption algorithm.