



Brett Gurman

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Education

Tufts University, Medford, MA

GPA: 3.24

- Bachelors of Science in Computer Science and Cognitive and Brain Sciences, May 2017
- Relevant Coursework: Machine Structure and Assembly Language, Programming Languages, Computer Graphics, Data Structures, Web Programming, Computation Theory, Operating Systems, Natural Language Processing, Human Computer Interaction, Algorithms

Work and Research Experience

Tufts Department of Computer Science | Medford, MA

Teaching Assistant | September 2014 - Present

(Comp11, Comp15, Comp40)

- Grade assignments for first three courses required for the Computer Science major
- Teach computer labs for beginner and intermediate level students
- Guide students in completion of major course assignments during office hours

EMC - Virtustream | McLean, VA

Software Engineer Intern | Summer 2016

- Created demos and user guides to accompany suite of security vulnerability and compliance assessment tools

Tufts Human-Robot Interaction Laboratory | Medford, MA

Research Assistant | November 2014 - August 2015

- Implemented methods to incorporate a physics simulator into decision making algorithms for use with robots

Skills

Programming Languages: C, Python, C++, Assembly, Javascript, HTML, CSS, Scheme, Standard ML, Java, Bash, SQL, R, Ruby, PHP

Software: Microsoft Office, GNU, Git, Linux, Mac OS, Windows, Heroku

Foreign Languages: Chinese

Selected Projects

Word Segmentation Algorithm for Chinese Sentences | Python

- Word segmentation algorithm which trains a language model on POS-tagged, hand-segmented Chinese sentences, which can then segment new sentences

Statistical Syntax Parser | Python

- CKY dynamic programming algorithm for probabilistic context-free grammars, which takes english sentences and determines and returns the appropriate syntax tree based on probabilities learned from training set

Universal Machine | C

- Segmented-memory universal machine - emulates a computer, including CPU registers and instruction set and memory, and can run programs, including an OS and text adventure game