

Skanda Koppula

450 Memorial Drive
Cambridge, MA 02139

skoppula@mit.edu
github.com/skoppula
1.412.259.3123

Massachusetts Institute of Technology

Major: Computer Science and Engineering

Candidate for BSc, 2017

Relevant courses: Constructive Multicore Architecture, Artificial Intelligence, Software Architecture, Design and Analysis of Algorithms, Biostatistics and Genetics, Machine Learning, Computation Structures

Projects and Work Experience

vuPoint, a collaborative platform for text comparison

Oct. 2013, Aug. 2014

- HackMIT web project (vupoint.meteor.com) later extended to be a prototype Android app
- Implemented Latent Dirichlet and Gaussian SVMs (via OpenCV) for sentiment and keyword analysis in pairwise essay comparison

Structure-Based Statistical Modeling of Protein Interactions

May 2014 - Aug. 2014

Informatics Intern at the Keating Lab

- Co-developed five-term frequency-analysis procedure to predict the stability of protein complexes
- Achieved > 350% speed-up via algorithmic changes (e.g. developing pre-processed libraries) and extending rate-limiting Python sections with C
- Submitting to *PLoS Computational Biology, Software*

Bayesian-Based Prognostic Modeling of Genetic Diseases

Jan 2013 - Oct. 2013

Research Student at CSAIL's Biomedical Cybernetics Lab

- Built Bayesian procedure to predict the onset of alcoholism and lung cancer ($\overline{AUC} = 0.84$)
- Presented at Am. Medical Informatics Assoc. San Fran 2013. Published in AMIA Proceedings

CollegeZen, Pittsburgh-based startup

June 2013 - July. 2013

Data Analysis Intern

- Scripted a web scraping procedure that populated CollegeZen databases with US college profiles
- Prototyped recommendation engine to suggest colleges that students might be interested in

Skills

- Proficient in **Java** and **Python**
- Working knowledge of **C++**, **R**, **Javascript**, **shell scripting**, **HTML5**, **Less**, and **L^AT_EX**
- Hacked together projects in **Android** SDK 21.1.0+
- Done data visualization with **Processing** (Java-based graphics language)
- Beginning **Bluespec** (functional hardware design language)

Awards

Top Ten in Newbie Division in MIT Battlecode AI Competition	2014
Silver Medalist in the USA Mathematics Talent Search	2013
First Place Undergrad Research Poster - NSF TeraGrid Supercomputing Conference	2012
Finalist in the Google International Science Fair	2011

Other interests!

Check out more at my coding, technology, and art blog! skoppula.github.io

- Doing TopCoder, Project Euler, and USACO problems
- Building electric vehicles (currently a mini-motorcycle!)
- Teaching: *Applied Algorithms in a Romantic World, Biochemistry - Kitchen Edition* among others!
- Helping out run EECScon, MIT's EECS research conference