# Andy Freeland

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EDUCATION

## Carleton College, Northfield, Minnesota

September 2008 – June 2012

Candidate for Bachelor of Arts in Computer Science; GPA: 3.734

• Relevant Coursework: Algorithms, Artificial Intelligence, Cryptography, Data Mining, Data Structures, Math of Computer Science, Statistics.

#### Lebanese American University, Beirut, Lebanon

September 2010 – December 2010

Institute for Intensive Arabic Language and Culture

• Semester program in Arabic language and culture, focusing on Modern Standard Arabic, Lebanese Arabic, and the politics of the Middle East.

Projects

#### Futures Market

June – July 2011

- Developed a futures market web application, similar to the Iowa Electronic Markets, using the Django framework and a jQuery frontend.
- Designed to handle a class of 50 students while performing live updates of stock prices and orders.
- Markets are initialized with and export to YAML for data analysis.

HITSearch June 2011

- Worked in a three-person team to develop a search engine using the Django framework.
- Implemented a web crawler that safely crawled and indexed over 8000 pages.
- Supported user customization of search results by adjusting the weight of term frequency versus the HITS algorithm in the ranking.

20 Questions June 2010

- Worked in a two-person team to build an artificially intelligent twenty questions but and web application using web.py.
- Conducted user testing to build a dataset and evaluate algorithms for choosing questions.
- Bot could learn new characters and new questions from user input.

RELATED EXPERIENCE

### Carleton College, Northfield, Minnesota

## **Assistant Systems Administrator**

June 2010 – present

- Deployed Git server and led transition from SVN to Git.
- Configured and maintained Mac and Windows computer labs, faculty machines, and Linux servers.
- Documented server and lab configurations and wrote technical instructions for students.
- Assisted students with debugging and version control.

Grader January 2010 – March 2010

- Graded programming assignments for an Introduction to Computer Science class.
- Evaluated for correctness and provided extensive feedback on style and programming practices.

### Rapid Response Assistant

September 2009 – June 2010

• Worked with a team of full-time staff and student workers to provide phone and on-site technical support to faculty and staff with software, hardware, and networking issues.

Additional Experience

# **Arabic Teaching Assistant**

January 2011 – present

- ullet Held office hours and one-on-one sessions to help students with homework and practice oral skills.
- Assisted professor during in-class group work with 20 introductory Arabic students by answering questions and facilitating discussion.
- Developed audiolingual learning materials for the second-year students which allow students to hear a recording, practice pronunciation, and receive professor feedback.

## Volunteer Math Tutor

August 2006 – Present

- Assisted teacher in tutoring 10-20 students from algebra through calculus in after-school sessions.
- Provided one-on-one tutoring for students outside of school.

Python, Django, HTML/CSS, Scheme, C, CoffeeScript, SQL, Git, Bash, Linux/Unix Administration.