

Grady Berry Ward

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Education

Brandeis University *Graduating May 2016*

GPA: **3.99**

Majors in Economics, Mathematics and Computer Science (BS)

Phi Beta Kappa (Jr.), Presidential Scholar, Lerman-Neubauer Fellow

Essex High School *Graduated June 2012*

GPA: **96.8**

Computer Proficiencies

Web Development:

Java EE, JSP/JSTL, Python + Django, SQL, JavaScript + Jasmine, HTML5 Responsive Web Design, CSS/SPSS/SASS/Less, Google App Engine (Java Only, Python in the works)

Scientific Work:

Java, Python, Matlab, R, STATA, SPSS, MuPad, SAGE, Scheme/Haskell/Lisp

Programming Projects

Thesis on Vertex Invariants (2015)

Research on the discriminatory power of different graph invariants, focusing on the Paths Function.

Color Linearization and Feature Detection (2014)

Research with Prf. DiLillo. Discovered an interesting way to traverse the color space of an image, and applied the technique to several algorithms as part of an application in thumbnail optimization

RGBD Image Segmentation (2013)

Worked on research on RGBD image manipulation, segmentation and processing using time of flight 'depth' cameras and a wide range of algorithms

Independent Programming

O(n) invertible enumeration of all possible binary trees, a wireframe 3D graphics component in Java, and boolean-satisfiability *probability* calculations in polynomial time, Educational Technologies for professors at Brandeis (Hardscrabble, Course Info Website, Student Union Website)

Work History

Team Lead – CalcU, a Machine Learning Adaptive Website for Learning Calculus – *Summer 2015*

- Built a scalable web application that scrapes the web for calculus resources, and uses user preferences and skill to direct students to problems, questions and content that best fits their needs.
- Received a competitive SPARK grant to hire three interns to finish development over summer 2015.
- Served in many roles, a mix of management, structural design, UX, and engineer. Always interesting!

Software Engineering Intern – edX, Cambridge, MA – *May to August 2014*

- Programmed as a full member of a three person scrum team in weeklong sprints to develop and deploy updates and new features to an essay grading component for online courses
- Learned on the job, becoming proficient in Python, Django and Javascript in the first two weeks
- Adhered to rigorous test driven development standards, best practices of SaaS, and scalable code design

Teaching Assistant (TA) – Brandeis University, Waltham MA – *August 2013 to Present*

- Held office hours, wrote programming assignments, graded assignments, problem sets, and tests, frequently designed programming assignments and unit tests for them. Lectured at weekly recitations, and occasionally conducted primary lectures (which is really fun).
- Courses include (over six semesters) COSI's 11, 12, 131, 130, 21, 130 and 180

Evaluation and Analysis Intern – Jumpstart, Boston MA – *May to August 2013*

- Used a variety of computer platforms to compile and analyze data on child language learning outcomes
- Synthesized diverse and incomplete data into clean, valid and representative models and reports

Community Advisor (RA) – Brandeis University, Waltham MA – *August 2013 to May 2015*

Activities and Interests

Student Representative to the Board of Trustees – *April 2014 to Present*

Intercollegiate Track and Cross Country – Cross Country, Indoor and Outdoor Track (4:19 mile)