

JOSEPH BOTROS

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EDUCATION

Harvard University

Cambridge, MA

A.B. Candidate: Molecular and Cellular Biology, Secondary Field: Computer Science. Expected May 2015. GPA: 3.82.

Terre Haute South Vigo High School

Terre Haute, IN

Valedictorian; Mr. Science of Indiana; White House Science Fair Delegate; National Olympiad semifinalist in biology, finalist in chemistry; JETS national champion team captain; SAT I: 2400

EXPERIENCE

Novartis Institutes for BioMedical Research

Cambridge, MA

Data Engineering Intern

June 2014 – December 2014

- ▶ Evaluated DBMSs and distributed computing systems for use in bioinformatics applications
- ▶ Automated deployment of these technologies to Novartis computing clusters using Chef and Fabric

The Harvard Crimson

Cambridge, MA

Director of Web Development

January 2013 – June 2014

- ▶ Supervised a development team of 20 programmers and web designers
- ▶ Implemented a full-scale restructuring of The Crimson's codebase (Python/Django) as the head of a team of three, and coordinated a responsive redesign of the website (increasing pageviews by 30%)
- ▶ Personally designed and created a system of "shortcodes" to allow arbitrary rich media placement within articles
- ▶ Acted as main designer for The Crimson's first ten online multimedia features, two winning placement in the top five Associated College Press Multimedia Features of the Year

Summer Business Manager

June 2013 – August 2013

- ▶ Led the organization's summer sales team of five to bring in over \$118,000 in advertising revenue
- ▶ Planned and organized The Crimson's Summer Journalism Academies for middle/high school students
- ▶ Managed collections, invoicing, payments, and day-to-day affairs of the business

Advertising Associate

January 2012 – December 2012

- ▶ Personally generated \$30,000 in revenue from print and online advertising sales
- ▶ Implemented improved contracting functionality in The Crimson's internal databases (Access/VBA)

Harvard University

Cambridge, MA

Visual Computing Group Researcher

September 2014 – Present

- ▶ Responsible for designing and implementing a novel tool for visualizing alternative splicing isoforms (Javascript/D3)

Molecular Biology Researcher

June 2012 – December 2013

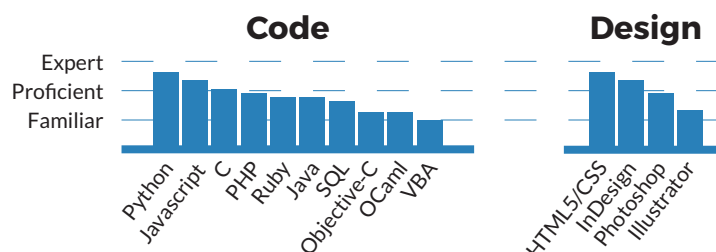
- ▶ Studied the functionality of *sirt2*, a human gene encoding a double-stranded RNA transporter protein
- ▶ Managed the breeding and record-keeping of the Hunter lab's mouse colony

Mathematics Course Assistant

September 2012 – December 2013

- ▶ Hosted weekly accessory lessons for introductory multivariable calculus and linear algebra courses

SKILLS



Lab

Mouse breeding and tissue harvest
MEF generation and culture
DNA subcloning, PCR, Western blot