Omar Chaarawi

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Programming Experience

Omarchaarawi.com   January 2020-Present

Recently launched omarchaarawi.com using a virtual server. Omarchaarawi.com is my personal website built from scratch using the Flask framework. The site features some of my personal projects with Github links as well as some information about me, all presented in a crisp, clean way using customized HTML and CSS.

Computational Chemistry Research Assistant, *MIT,* Cambridge, MA   January 2015–August 2015

Used python to construct models of molecular systems and perform calculations on a GPU accelerated cluster. Increased research efficiency and reduced submission errors by developing programs to automate submissions to GPU cloud. Demonstrated the possibility of performing complex quantum calculations on molecular systems which were previously deemed too complex by parsing models into more elegant, simple forms.

Research Experience

Head Polymer Research Assistant, *Ithaca College, Haaf Lab,* Ithaca, NY   January 2016–June 2017

Assembled original data on reaction dynamics of novel organic compounds using computational chemistry methods. Programmed visual aids to demonstrate functionality of novel chemicals for presentation and future researchers. Processed molecule characterization data to publishable standards.

Biochemistry Research Assistant, *Ithaca College,* Ithaca, NY   January 2015–May 2016

Demonstrated new data on dynamics of plant proteins through analysis of nuclear magnetic resonance spectroscopy. Evaluated fusion constructs through analysis of protein purification data.

Other Experience

Crew Chief, *Gentle Giant Moving Co.,* Somerville, MA   May 2014–September 2018
Urban Forester, *Berkelhammer Tree Experts*, Boulder, CO   October 2018–present

Education

Computer Science, *University of Colorado Boulder,* Boulder, CO   January 2020–present
B.S. Chemistry with Honors, *Ithaca College,* Ithaca, NY   August 2013–May 2017

Skills

Computer Systems, Data Structures, C, C++, Python, HTML, CSS, Unix, Data Analysis, Technical Writing

Leadership and Volunteer

Resident Assistant, *Ithaca College,* Ithaca, NY   August 2014–May 2015
Organizer, *Across American for ALS*, Boston, MA   May 2013–August 2013

Organized and lead a trans-American charity bicycle ride from Boston to San Francisco to raise money for ALS research and spread awareness

Awards and Honors

Sigma Xi Honor Society
American Chemical Society Summer Research Fellowship Award
Shirley Hockett Scholarship for the Natural Sciences, Mathematics, and Computer Sciences