Ashley Custer

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EDUCATION

Boston University, College of Engineering, Boston, MA   anticipated May 2015
- Masters of Engineering, Computer Engineering (GPA: 3.8)
- L.E.A.P. Merit Scholarship (awarded Jan 2013), College of Engineering Scholarship (awarded Sep 2014)

California Polytechnic State University, College of Science and Mathematics, San Luis Obispo, CA   June 2010
- Bachelor of Science in Biological Sciences (GPA: 3.2)
- Dean's List 2007 and 2008

TECHNICAL SKILLS

Programming languages and OS: Python, JavaScript, Java, C++, MATLAB, Verilog;
                HTML5, CSS, JSON;   Windows, OS X, Linux
Software: Microsoft Office Suite, Adobe, SolidWorks (CAD), Cytoscape and UCSF Chimera (Biological tools)

RELATED PROJECTS

- Python and JavaScript: MBTA subway passenger entry and exit data visualization   Jun 2014 - Aug 2014
    - https://github.com/ashleycuster/mbta_viz
- C++: Programmed object-oriented *Gold Mining* game using C++   Oct 2013 – Dec 2013
- Verilog: Coded debouncer/counter on FPGA linked to VGA display   Dec 2013 – Dec 2013
- MATLAB: Programmed *Enigma EncryptingIDecrypting*, *DNA Mutation Detection*, and   Sep 2012 – Dec 2012
    3D Aircraft Acceleration projects

PROFESSIONAL EXPERIENCE

Massachusetts Bay Transportation Authority, Boston, MA   Jun 2014 - Aug 2014
Technical Intern, Programmer
- Created dynamic visualization of MBTA subway entry and exit data using D3.js
- Developed experimental automation of subway delay alerts using prediction data

University of California, San Francisco, San Francisco, CA   Nov 2010   -   Jul 2012
Analyst, Department of Bioengineering and Therapeutic Sciences
- Structure-Function Linkage Database
    - Developed generalized protocol to assign function to thousands of protein enzymes
    - Managed help email and handled queries from collaborators and external users
- Enzyme Function Initiative
    - Co-coordinated four multi-institution conferences; Judged, co-organized annual poster session
- Patricia Babbitt's lab and Tanja Kortemme's lab
    - Reviewed grant applications, collaborated with investigators and finance teams, directed supply orders
    - Coordinated bioinformatics assignments and course website for School of Pharmacy students
    - Managed appointments of ~30 personnel and arranged visa documentation for international postdocs

Petit Soleil Bed & Breakfast, San Luis Obispo, CA   Jul 2008   -   Jul 2010
Charming French-inspired sixteen-room inn ranked "Best of Yelp"
- Oversaw culinary responsibilities and customer relations, new employee training

PUBLICATIONS

Akiva E, et al. "The Structure-Function Linkage Database," *Nucleic Acids Research*. 2014 Jan, 42(1):D521-30