DAZHONG JOHN XIA
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EXPERIENCE

Recurse Center
455 Broadway, 2nd Floor
New York, NY 10013 United States
08/2015 - 11/2015
Hours per week: 40
Participant
Duties, Accomplishments and Related Skills:
Recurse Center is a 3-month-long "programmer's retreat", where I had the opportunity to learn about any programming topics I was interested in. I spent most of my time learning Haskell, through both courses and projects.

- Completed a course on Haskell fundamentals
- Completed a course which included designing a CPU with HDL and writing an assembler, stack VM, and compiler in Haskell
- Completed several small projects in Haskell, including a compound Chinese character generator with a browser front-end
- Reimplemented core Git features (add, commit, and checkout) using Haskell

Center For Data Intensive Science at University Of Chicago
900 East 57th Street
Rm 10148
Chicago, IL 60637 United States
04/2015 - 08/2015
Salary: 30.00 USD Per Hour
Hours per week: 35
Software Developer
Duties, Accomplishments and Related Skills:
As a software developer I wrote tools to help scientists process large amounts of data.

- Main developer for Project Matsu, a collaboration between NASA and the Open Cloud Consortium to develop open source tools for cloud-based processing of satellite imagery
- Eased geospatial data processing by writing a Python framework to run analytic scripts with Hadoop Streaming and PySpark
- Maintained single-node installations of Hadoop and Spark on virtual machines for development
- Shared analytic results by integrating above framework with Django, PostGIS, and GeoServer

Supervisor: Maria Patterson (812-345-2654)
Okay to contact this Supervisor: Yes

Heritage Chinese Center
475 N Whisman Rd

Mountain View, CA 94043 United States
06/2014 - 04/2015
Salary: 60,000.00 USD Per Year
Hours per week: 40
Software Developer
Duties, Accomplishments and Related Skills:
As a software developer I Worked on a two-person team to build a Django-based webapp to supplement a Chinese education curriculum.

- Brainstormed and tweaked game and website designs with teachers
- Used Phaser, a JavaScript game framework, to make vocabulary-building webgames
- Prototyped in-browser Chinese linguistic tone recognition with JavaScript and Web Audio API
- Installed and administered PostgreSQL database on AWS server
- Ported webapp to iOS using Phonegap

Supervisor: Sushu Xia (650-283-7008)
Okay to contact this Supervisor: Yes

Computational Nuclear Engineering Research Group - University of Wisconsin-Madison
1500 Engineering Dr
Madison, WI 53706 United States
10/2014 - 03/2015
Salary: 25,000.00 USD Per Year
Hours per week: 20
Associate Research Specialist
Duties, Accomplishments and Related Skills:
At CNERG, I continued working with and expanding the nuclear engineering tool suite I had been working on at the University of Chicago.

- Rebuilt xsgen, an open-source nuclear cross-section library generator written in Python
- Co-evolved particle transport and transmutation to generate more accurate cross-section libraries
- Built plug-ins to integrate OpenMC, an open-source Monte Carlo particle transport code, and ORIGEN, a transmutation code, as computation backends

Supervisor: Anthony Scopatz (512-827-8239)
Okay to contact this Supervisor: Yes

Flash Center for Computational Science - University of Chicago
5747 S. Ellis Ave, 3rd floor
Chicago, IL 60637 United States
10/2012 - 06/2014
Hours per week: 8
Research Assistant
Duties, Accomplishments and Related Skills:
As a research assistant I mainly contributed to PyNE, an open-source nuclear engineering toolkit written mostly in Python.

- Imported PNNL materials compendium into PyNE database
- Constructed infrastructure for accessing and processing ENDF nuclear data using NumPy

- Optimized data parsing for speed using Cython
- Measured and visualized software performance using matplotlib

Supervisor: Anthony Scopatz (512-827-8239)
Okay to contact this Supervisor: Yes

Mission Street Manufacturing
807 Mission St
Santa Barbara, CA 93101 United States
06/2013 - 08/2013
Hours per week: 40
Software Intern
Duties, Accomplishments and Related Skills:
As a software intern I worked with three other people to build software to simplify the 3D printing process.

- Enabled children to design and print 3D models by connecting Raspberry Pi, 3D printer, iPads, and AWS server
- Coordinated server-side 3D model processing with Python and Redis
- Wrote native iOS app in Objective-C to design 3D objects by revolving a 2D sketch
- Wrote server-side tool to extrude bitmap images into 3D models with Python and Numpy
- Prototyped constructive solid geometry rendering engine for iOS using Objective-C

EDUCATION
University of Chicago, Chicago, IL
BA: Physics with Honors, June 2014
GPA: 3.56/4.00

SKILLS
Programming Languages: Proficient with Python, Haskell, JavaScript, HTML5/CSS, LaTeX
Tools: Linux, Git, Django, Flask, Hadoop, Spark, PostgreSQL, PostGIS, AWS