DAZHONG JOHN XIA
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EDUCATION

University of Chicago, Chicago, IL
BA: Physics with Honors, June 2014

EXPERIENCE

Recurse Center, New York, NY
Participant, August 2015 - November 2015

- Completed architecture course which went from logic gates to designing a CPU to writing a compiler
- Completed several small projects in Haskell, including a compound Chinese character generator with a browser front-end
- Reimplemented core Git features using Haskell

Center for Data Intensive Science, Chicago, IL
Software Engineer, April 2015 - August 2015

- Wrote a framework to run geospatial analytic scripts with Hadoop and Spark
- Maintained single-node installations of Hadoop and Spark on virtual machines
- Shared analytic results by integrating above framework with Django, PostGIS, and GeoServer

University of Wisconsin-Madison, Madison, WI
Associate Research Specialist, October 2014 - March 2015

- Enhanced nuclear fuel cycle simulation by writing a neutronics data library generation tool in Python
- Wrote plugins to integrate Fortran-based neutronics codes as computational backends

Heritage Chinese Center, Mountain View, CA
Software Developer, June 2014 - April 2015

- Designed and built Chinese vocabulary training games using Javascript
- Adapted Django backend to suit evolving needs of curriculum, students, and teachers
- Prototyped in-browser Chinese linguistic tone recognition

Mission Street Manufacturing, Santa Barbara, CA
Software Developer, June 2013 - August 2013

- 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, Flask, and Redis
- Wrote native iOS app to design 3D objects by revolving a sketch
- Built rudimentary constructive solid geometry rendering engine for iOS

FLASH Center for Computational Science, Chicago, IL
Research Assistant, October 2012 - June 2014

- Contributed to PyNE, an open-source nuclear engineering toolkit written mostly in Python
- Constructed infrastructure for accessing and processing nuclear data
- Optimized data parsing for speed using Cython

SKILLS

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