

Yang Dai

DATA SCIENCE · PROGRAMMING · RESEARCH

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Education

University of Utah

PH.D. IN PHYSICAL CHEMISTRY

Salt Lake City, Utah

Aug. 2011 - May. 2017

- Thesis: Electronic Characterization Of Size-Selected Platinum Clusters and Modification Through Atomic Layer Deposition

Experience

Massachusetts Institute of Technology

POSTDOCTORAL FELLOW

Cambridge, Massachusetts

Jun. 2017 - Exp. Jun. 2019

- Transitioned data analysis method from conventional Excel-like spreadsheet to Python Scripting. Wrote a Python Library for preprocessing, analyzing, and visualizing data collected from various surface science instruments. (github.com/superyang713/LabCode)
- Built a webapp to remotely monitor lab instruments' vacuum pressure and samples' temperature. (yangdai.info/lab/pressure_monitor)
- Created a custom jupyter notebook docker image that contains all the necessary python packages for data analysis. Colleagues who are new to python use it for fast environment setup for data analysis.

University of Utah

RESEARCH ASSISTANT

Salt Lake City, Utah

Jan. 2013 - Feb. 2013

- Designed, fabricated and maintained a surface science apparatus from the ground up for nanoparticle research.
- Wrote LabView programs for data data acquisition and system control.

Skills and Certification

Certification	AWS Solution Architect - Associate
Programming	Python, C++, JavaScript
Data Science	Numpy, Pandas, Matplotlib, Scikit-Learn, Keras, Tensorflow
Web	Django, HTML, CSS
Tools	Emacs, Vim, Git, Jupyter Notebook, Shell, Docker, SQL