

Vernon, CT  
(860) 306-2865  
[fuchang.sun@gmail.com](mailto:fuchang.sun@gmail.com)

# Fu-Chang Sun



## Summary

Aspiring Data Scientist who converts data into insights supported by statistical evidence using machine learning techniques. Qualifications include 5+ years research experience, data analysis and visualization, coding proficiency, mathematical background, proven interpersonal skills, and ability of collaboration.

## Education

<b>Nanodegree Graduate</b> in Machine Learning Udacity, <a href="http://www.udacity.com">www.udacity.com</a>	October 2017
<b>Doctor of Philosophy</b> in Physics University of Connecticut (UConn), Storrs, CT	May 2017
<b>Master of Science</b> in Physics University at Buffalo (UB), Amherst, NY	January 2010
<b>Bachelor of Science</b> in Math and Physics (Double Major) National Cheng Kung University (NCKU), Tainan, Taiwan	June 2006

## Technical Skills

- Shell Scripting, Python, pandas, Scikit-Learn, Machine Learning, Data Visualization, Statistical Modeling, SQL, C/C++ , MATLAB, Unix,  $\text{\LaTeX}$

## Project Experience

<b>Machine Learning Engineer Nanodegree Program</b> at Udacity	October 2017
<ul style="list-style-type: none"><li>• Applied statistical analysis tools to predict housing prices and evaluate the predictive model by grid search technique to optimize a learning algorithm</li><li>• Utilized supervised learning models such as Decision Trees, SVMs, Neural Networks to target potential financial contributor using relational database</li><li>• Identified patterns and structures in unlabeled data of wholesale distributor's service using unsupervised learning technique and unveil its clustering for new prediction</li><li>• Implemented reinforcement learning algorithm and convolutional neural networks for image classification</li></ul>	
<b>Materials Hackathon (MatHack)</b> at MRS Fall Meeting & Exhibit	December 2015
<ul style="list-style-type: none"><li>• Received the <i>Third Place of Materials Hackathon</i> by automatically collecting materials crystallographic data from wiki and AMCSD databases</li><li>• Awarded as <i>Special Prize for Materials Data Challenge</i> by sustainable and extensible <a href="#">research project</a> embedding in the commercialized server</li></ul>	

## Work Experience

<b>Research Specialist</b> Department of Materials Science & Engineering, UCONN	September 2017 – Present
<ul style="list-style-type: none"><li>• Perform exploratory data analysis to gain a deeper understanding with data visualization tools</li><li>• Design, develop, and test the machine learning models for creating the sustainable workflows</li></ul>	
<b>Research Assistant</b> Department of Materials Science & Engineering, UCONN	September 2013 – January 2017
<ul style="list-style-type: none"><li>• Conducted and published 7 scientific research on ferroelectric materials using computational modeling in quantum, classical, and continuum time and length scale</li><li>• Designed the theoretical-based model and analyzed the simulation results of ferroelectric devices with different stacking geometry to explain experiment observation</li></ul>	
<b>Lab Instructor, Teaching Assistant</b> Department of Physics, UCONN	September 2010 – May 2013
<ul style="list-style-type: none"><li>• Motivated student engagement by creating in-class activities and prompting discussions</li><li>• Encouraged 240+ students to develop critical thinking skills with various experiment setup</li></ul>	