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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

Nanodegree Graduate in Machine Learning Udacity, www.udacity.com	October 2017
Doctor of Philosophy in Physics University of Connecticut (UConn), Storrs, CT	May 2017
Master of Science in Physics University at Buffalo (UB), Amherst, NY	January 2010
Bachelor of Science 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, Plotly, C/C++ , MATLAB, Unix, \LaTeX

Project Experience

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

Work Experience

Research Assistant Department of Materials Science & Engineering, UCONN	September 2013 – January 2017
<ul style="list-style-type: none">• Conducted and published 7 scientific research on ferroelectric materials using computational modeling in quantum, classical, and continuum time and length scale• Designed the theoretical-based model and analyzed the simulation results of ferroelectric devices with different stacking geometry to explain experiment observation	
Lab Instructor, Teaching Assistant Department of Physics, UCONN	September 2010 – May 2013
<ul style="list-style-type: none">• Motivated student engagement by creating in-class activities and prompting discussions• Encouraged 240+ students to develop critical thinking skills with various experiment setup	