Archana Subramaniyan, PhD

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asubramaniyan
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EDUCATION

Ph.D., Materials Science **2012 - 2014**
Colorado School of Mines *CO,USA*
GPA: 3.819/4.0

M.S., Materials Science **2009 - 2011**
Colorado School of Mines *CO,USA*
GPA: 3.819/4.0

B.Sc., Industrial Electronics **2003 - 2006**
Bharathidasan University *India*
GPA: 8.24/10.0

SELECTED PROFESSIONAL EXPERIENCE

Data Science Resident Fellow **07-2020 - Present**
Women in Data
- Performed data analysis on Sacramento city's crime data and showed that the overall crime has reduced by 18% post COVID-19

Product Marketing Manager **2018 - 2019**
Lam Research *Fremont, CA*
- Created marketing collateral for semiconductor etch processing tool parts, explaining the engineering concepts to varied customers from scientific and non-scientific background
- Performed data analysis and automation of pricing calculation for Lam's semiconductor etch parts using python

Doctoral Researcher **2012 - 2014**
National Renewable Energy Laboratory (NREL) Golden, CO
- Performed **multivariate data analysis** and **data visualization** in IgorPro to find the relationship between thin film deposition process parameters
- MRS cash award for best oral presentation @ "Compound semiconductor materials and devices" symposium, 2013 Fall Materials Research Society (MRS) Conference, MA

Programmer **2006 - 2008**
Cognizant Technology Solutions India
- Developed programs in COBOL and Lotus script for insurance applications
- Awarded first place (one of the four employees among 35) in the 2007 annual appraisal 2007 for my analytical skills, team work, tedious research and commitment

LEGAL STATUS

US Permanent Resident (Green Card)

DATA SCIENCE SKILLS

Statistics, Machine Learning, Deep learning, Natural Language Processing

Coding languages: Python, SQL , git(basics)

Libraries: Pandas, Numpy, Scikit-learn, Matplotlib, Scipy, Pytorch, Seaborn

SELECTED DATA SCIENCE PROJECTS

Classification of gene-mutation pair from unstructured clinical literature text for personalized cancer treatment
NLP techniques were used for text preprocessing and feature engineering was performed using Sci-spacy and classified using logistic regression.
https://github.com/asubramaniyan/Personalized-medicine-cancer-treatment

Classification of landscape images using Convolutional Neural Network (CNN)
A CNN model was developed in Keras with an accuracy of 84%.
https://github.com/asubramaniyan/Image-classification-using-CNN

VOLUNTEER ACTIVITY

Scikit-learn contributor
Contributed to improve the documentation of module kernel_approximation.py and class CalibratedClassifierCV.py