SAURABH KULKARNI

CONTACT INFORMATION
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EDUCATION

University of California San Diego,
- MS. Intelligent Systems, Jacob's School of Engineering
- Certificate: Micro MBA, Rady School of Management, UCSD

Birla Institute of Technology and Sciences,Pilani,
- BE. Electrical and Electronics Engineering

WORK EXPERIENCE

Graduate Intern, IgrenEnergi, Inc August 2016 - Present
- **Key Responsibilities:** Develop power output forecasting models for PV array using shadow effects weather data, irradiance data and PV panel characteristics. Evaluate models for actual data collected on the pilot site.
- Develop a data-driven diagnostic backend to identify system faults based on acquired data. **Tools: Python and C++**

Undergraduate Intern, Intel July 2014 - Dec 2014
- Developed a sensor-fusion based g-force evaluation and inertial navigation system.
- Implemented a pilot system on a Raspberry Pi platform using Python and Numpy, Scipy modules

RELEVANT SKILLS

Languages and Tools: R, Python, SQL, C++, MATLAB, Tableau, PySpark
Machine Learning: Adaptive filtering techniques, multivariate regression, supervised and unsupervised classification, tree-based ensembling, boosting, Bayesian generative models
Relevant Courses: Statistical Learning, Data Analysis using R, AI using graphical models, Computational Modeling in Cognition, Digital Signal Processing, Parameter Estimation, Computer Vision, Recommender Systems (ongoing), Neural Networks (ongoing), Data Mining using Spark (ongoing)

RELEVANT PROJECTS

Predictive Modelling for Insurance Claim Approvals March 2016
- Implemented a **R-based** robust rare class classification model to accelerate claims management processes of BNP Paribas Cardif.
- Significant variables were identified and the classification performance of random forest and xgboost with respect to the base case of logistic regression.

Handwritten Digit Classification Apr 2016
- Implemented two models: Multivariate Gaussian generative models and feed-forward multilayered Neural Network model to classify images of handwritten digits of MNIST dataset and the two results were compared with the base case of logistic regression.
- **Tools:** Python with scipy, sklearn and seaborn packages

Transfer Learning using ConvNets Jan 2017
- Implemented classification on CalTech 256 and UrbanTribes Datasets using a pretrained CNN Model. Explored the effects of using different output activation functions, decreasing depth of the network and performed visualization for different filters.
- **Tools:** Tensorflow and Keras on Python3

Amazon Reviews Recommender System Feb 2017
- Built a recommender systems to make ratings predictions related to reviews of Clothing, Shoes, and Jewelry on Amazon.
- Compared the performance of latent factor models with simple collaborative filtering on the dataset. Tuned the model for optimal hyperparameters.
- **Tools:** Python with sklearn package