SAURABH KULKARNI

CONTACT INFORMATION
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EDUCATION

University of California San Diego,
- MS. Intelligent Systems, Jacob's School of Engineering (GPA: 3.5/4)
- Certificate: Micro MBA, Rady School of Management, UCSD
- Received grades **A+** in Data Analysis grad course, **A** in Recommender Systems course

Birla Institute of Technology and Sciences,Pilani,
- BE. Electrical and Electronics Engineering (GPA: 8.35/10)

WORK EXPERIENCE

Graduate Intern, IgrenEnergi, Inc **Aug 2016 - Dec 2016**
- Implemented **predictive models** to predict power for PV array using weather data, solar data, panel characteristics and shading patterns in Python.

Undergraduate Intern, Intel **July 2014 - Dec 2014**
- As part of Intel's telematics team, I performed **sensor-fusion** by combining 3 sensor data: accelerometer, gyro and speedometer to predict real time g-force in 3-dim and implemented a rudimentary inertial navigation system.
- Implemented a pilot system on a Raspberry Pi platform using Python.

RELEVANT SKILLS

Languages and Tools: Python, MATLAB, R, SQL, Spark, C, Tableau, Linux, Git
Machine Learning: Data cleaning, visualization, feature engineering, data modeling and tuning, validation
Concepts: Bayesian statistics, probability, optimization, ensembling, clustering, regression, classification, neural networks

RELEVANT PROJECTS

Predictive Modelling for Insurance Claim Approvals
- Implemented an end-to-end R-based data solution to classify insurance claims in an imbalanced dataset with 133 variables.
- Performed data cleaning, feature selection
- Implemented random forest and xgboost and logistic regression
- Analyzed perfomance of models. Achieved a logloss score of 0.456 using xgboost.

Handwritten Digit Classification
- Trained and analyzed 3 models to identify digits in MNIST Image Dataset
- Multivariate Bayesian classifier, gradient descent using softmax and feed-forward multi layered neural net with backprop were implemented in Python.
- Achieved a best accuracy of 96.8% on the NNet. Explored change in response for different network topology, activation functions and batch size.

Amazon Reviews Recommender System
- Built a recommender systems to make ratings predictions and estimate review helpfulness for a given database of Amazon reviews.
- Implemented latent factor models using alternating LS
- Optimized prediction for its hyperparameters
- Achieved an MSE improvement of 28% compared to naive predictive model

Transfer Learning using ConvNets
- Implemented classification on CalTech 256 and UrbanTribes Datasets using a VGG16 CNN Model, using Keras-Tensorflow on Python.

LEADERSHIP

Led a team of 3 TAs and 8 tutors as head teaching assistant in the Intro to Analog Design course at UCSD. Conducted weekly tutoring sessions for a class size of 120 students