


BHAVUL GAURI

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Experienced Data Scientist with 3 years of experience in Machine learning & research as well as in Back-end software development at scale. Proficient in deep learning, especially interested in computer vision. Seeking for opportunities to use AI for betterment of the humanity and the world.

Education

BITS PILANI UNIVERSITY | 2011-2016

M.S. MATHEMATICS,
President, Mathematics Association


B.E. COMPUTER SCIENCE
Teaching Asst for AI and OS Courses

Publications

 **CBTS-SVM FOR MULTI-CLASSIFICATION**
ICACCI-2015 Conference, IEEE

 **DISTRIBUTED MULTI-CLASS SVM**
Symposium WCI-2015, ACM


Certifications


-  **COURSERA (deeplearning.ai)**
- Convolutional Neural Networks
 - Neural Networks and Deep Learning
 - Structuring Machine Learning Projects
 - Improving DNN : Hyperparameter tuning, Regularization & Optimization
 - Sequence Models

Awards

EINSTEIN AWARD, ENDURANCE 
Sep 2017 | For delivering perfection at work

WINNER, ENDURANCE HACKATHON
Dec 2016 | Android app for SMBs finances

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Projects

Media Recommender System @Zapr [FLASK, SK-LEARN, TENSORFLOW](#) | PRESENT

- Built a content based filtering recommender system utilising text metadata for media utilizing a mix of CountVectorizer and Tfidf Vectorizer and exposed APIs
- Developed Custom Backprop based on Triplet loss to train hyperparameters
- Deployed approx nearest neighbours to calculate similarity for 2M+ content in < 1 hour

Video Frame Content Detection @Zapr [KERAS, TENSORFLOW, OPENCV](#) | NOV 2018

- Constructed a CNN + LSTM pipeline to classify between an Ad and a TV show frame
- Built an image processing pipeline to detect TV show's content frames even when frames were mostly blacked out due to security purposes

Active User Base Booster @Zapr [SCIPY, BIG DATA](#) | DEC 2018


- Designed a heavily optimised system that computed user-pairs jaccard similarity for 10M+ users to find pairs of users that can act as proxy for one another
- Developed a pipeline which predicted TV viewership for churned users based on their historical data and gave a 150% increase to the user base through this

Semantic Segmentation of Floor Plans @Foyr [KERAS, OPENCV, MPL](#) | MAY 18

- Developed an Annotator tool using matplotlib and OpenCV for generating ground truth
- Used Fully Convolutional Networks (FCN) for image segmentation, for detection of walls, doors, and other entities in floor plan images, achieved 82% mean IoU

 **End-to-End Emotion Classifier (Deep learning)** [KERAS](#) | APR 18

- Used Transfer learning with Inception v3 as base model on instagram images data
- Open sourced experiment notebook as well as the project

 **Support Tickets Helper Tool** @Endurance [NLTK, GENSIM](#) | MAR-APR18

- Used TF-IDF embeddings coupled with cosine similarity to find similar support tickets
- Added mailing, auto-assigning, and open sourced the tool for any JIRA team

AI Logo Builder @Endurance [FLASK, TENSORFLOW, PIL](#) | AUG-NOV 2017

- Architected a system that used Genetic Algorithm to generate logos given brand name
- Designed a DSL for expressing any logo, and an AI font-pair generator using VGGNet

WebPro Panel @Endurance [JAVA, SPRINGBOOT, POSTGRESQL](#) | DEC 2017 - JUN 2018

- Wrote a diverse set of RESTful APIs on top of SpringBoot to serve the new panel
- Authored an authentication layer with Aspect Oriented Programming to ease validation
- Migrated a beta set of customers with zero downtime or issues

Experience

Zapr Media Labs **Oct 2018 - Present**
Senior Data Scientist

- Working on projects in computer vision, recommender systems at big data scale

Foyr **Apr 2018 - Aug 2018**
Data Scientist (Part-time / Project Basis)

- Used computer vision techniques to do pixel-level classification for floor plan images.

Endurance International Group (Directi) **Jan 2016 - Sep 2018**
Software Development Engineer (I2a)

- Major contributions in Finance modules of back-end production systems that served 5M+ active clients. Also worked on some Machine learning projects

Skills

Languages/DB Java | Python | C++ | PostgreSQL | Hive | MongoDB
Frameworks Keras | Tensorflow | Hadoop | NLTK | Matplotlib | Flask | Spring | OpenCV
ML Deep Neural Networks | SVM | Logistic Regression | Random Forest | Clustering | Ensemble methods | Recommendation Systems | Matrix Factorization
Development OOP | RESTful APIs | Maven | JWT | Unit Tests | MVC | Git | Lambda