

## PROJECTS

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- **Celebrity Face Detection:** Deep Learning to recognize celebrity faces using CNN in Tensor Flow
- **Homography : Image Panorama:** Image Stitching after homography & fundamental matrix estimation
- **MNIST & USPS Data Classification:** Python based Classification using Neural Networks
- **Learning to Rank (LeToR):** Python based prediction system using linear regression
- **Laplacian Blob Detector:** Matlab based Computer Vision and Image Processing Scale-space blob detection
- **Spatial Pyramid Matching for Scene Classification:** Matlab based representation on bags of visual words.
- **Vulgar Abuse filter as Browser Extension:** Deep Learning based social feed analyzer to block abuse
- **Indian Regional Languages Character recognition:** Modelled an ANN to classify and recognize input images.
- **Load Balancing of Wireless Networks:** Implemented socket programming to balance the network load

## PROGRAMMING SKILLS

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- **ML/AI:** TensorFlow, Sklearn, Pandas, Numpy, Keras, Scipy, Matplotlib, glmnet, xgboost, seaborn, ggplot
- **Software:** NodeJS, Django, Express, Angular, React, Ruby, MongoDB, Mysql, Redis, DynamoDB, Git
- **Devops:** AWS-EC2, Lambda, ELB, WAF, Firehose, Lex, Chef, Puppet

## WORK EXPERIENCE

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- **UB Experiential Learning Department** Buffalo, NY  
*Graduate Research Assistant* Nov 2017 - Present
  - **Design Data Repository: Research Work under Dr. Andrew Olewnik :** Automation of various ontology's in a production system, development alongside CUBRC
- **Faasos Food Services** Mumbai, India  
*Software Engineer* Dec 2015 - May 2017
  - **Backend Micro-Service API's:** Developed & maintained all REST based Web Services. Micro-services written in NodeJs, Python & Ruby on Rails. Scaled MVPs to production level software consuming 300K requests per second. Optimized, re-factored & reduced errors by 25% of existing code base.
  - **Devops Role:** Leveraged AWS Lambda function to scale a server-less stack. Wrote and improved algorithm to bid for cheapest & optimum spot instances of server and deploy dynamically.
  - **oAuth:** Generation of a JWT token, verifying validity for each requested and re-issuing expired tokens. Implemented redis based bloom filter, which increased efficiency by 63%
  - **Material Management System:** Full scale delivery supply chain tracking tool, web-app on NodeJS, to be used by stores, warehouses and vendors.
  - **Time-series Forecasting:** Weekly ARIMA forecasting of orders. Holt-Winters forecasting of inventory consumption for auto-indenting in the supply chain.
  - **Configuration Server:** Self discovering high availability configuration server. Dynamo-DB and Node.js based Lambda functions were used.
- **Socomo Technologies-Jugnoo** Chandigarh, India  
*Full Stack Developer* June 2014 - Nov 2015
  - **Backend Micro-Service API's:** Node.js - Express based server web, android and ios app API's for finding ride, displaying coupons, audit dashboards. MySql was used as database with calculating ride distance, allocation of driver, fare calculation done in Python
  - **Front-end Team Lead:** Developed an AngularJS 1.0 Single Page Applications, used by 3k+ Operations team. Headed a team of 4 developers
  - **Price Surge Algorithm:** Mapping out real time supply vs demand ratio using a clustering algorithm, depending on geo-location.

## EDUCATION

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- **State University of New York** Buffalo, NY  
*Master of Science in Computer Science; GPA: 3.42* Aug. 2017 - Dec. 2019
- **NIT** Bilaspur, India  
*Bachelor of Engineering in Information Technology; GPA: 7.75/10.0* Aug. 2011 - July. 2015