# Dwarkanath Prabhu

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## DATA ANALYSIS EXPERIENCE

**Skin Cancer Detection Using Deep Learning (Computer Vision)**  Aug. 2018 – Dec. 2018
*College Station, TX*

- Analyzed a labeled database of 10,000+ skin images to classify into 7 types of diseases
- Achieved validation multi-class precision of 87.5% - a 25% improvement over baseline by using:
    o Pretrained (on ImageNet) ResNet50 in TensorFlow
    o Data Augmentation and Weighted Loss to fix class imbalance

**Anomaly Detection on Multivariate Data (Unsupervised Learning)**  Oct. 2016 – Dec. 2016
*College Station, TX*

- Analyzed a dataset from a manufacturing plant with 209 dimensions and 552 samples
- Conducted PCA and plotted scree plot using Python to reduce dimensions from 209 to 4
- Applied $T^2$ Phase I analysis with a Type I error threshold of 5% recursively to remove out-of-control data till only in-control data was left

## WORK EXPERIENCE

**Texas A&M University**  Sep 2017 – Dec 2017
*Research Assistant*  *Pasadena, TX*
- Conducted time study of 15 processes at a chemical plant to identify steps that to be eliminated via automation
- Ran Monte Carlo simulation over 1000 shifts to estimate work force requirements that cover 99.7% of shifts
- Recommended automation that cut mean process times by 12% and workforce requirement by 33%

**Aasaanjobs.com (job portal startup)**  Jan 2015 – Jan 2016
*Marketing Manager*  *Mumbai, India*
- Recruited and led a team of 6 content writers and digital marketing experts
- Investigated sources of user acquisition using SQL to optimize marketing spending
- Achieved 20,000 app downloads in three months since launch at an average cost of $1 per install

**Deloitte**  Jul 2012 – Dec 2014
*Analyst*  *Gurgaon, India*
Supply Chain Transformation for a leading footwear manufacturer (10-month project)
- Classified data of 100+ manufacturing facilities from SAP of finished goods, raw material and semi-finished goods inventory into 3 cost-based classes; Formulated aggregate plans for each class of goods
- Created dashboards in Excel for production teams to generate schedule and procurement plan
- Improved service levels from 65% to 90% and increased rated production capacity by 20%

## EDUCATION

**Texas A&M University**  **Dec., 2018**
*M.Eng, Industrial Engineering, CGPA 3.52*  *College Station, TX*

## SKILLS & INTERESTS

- **Skills (links to projects next to skill):**
    o Computer Vision (Python with TensorFlow, NumPy, Matplotlib, Pandas): [Skin Cancer Classification](#)
    o Web Development: [Twitter Clone](#) (Flask) | [Static Site](#) (Hugo) | [Personal Homepage](#) (HTML + CSS)
- **Interests:** Standup comedy, memes, digital marketing, professional wrestling, soccer, startups