

EDUCATION

Georgia Institute of Technology, Atlanta, GA

Aug 2019 - Dec 2020

Master of Science in Computational Science & Engineering. CGPA: 3.86/4

Graduate Teaching Assistant for Data & Visual Analytics course

Jan 2020 - Present

Indian Institute of Technology, Kharagpur, India

Aug 2012 - Jul 2016

Bachelor of Technology (Hons.) in Industrial Engineering. CGPA: 8.2/10

WORK EXPERIENCE

Summer Intern, Western Digital

Jun 2020 - Jul 2020

- **Information Extraction from invoices** (Independent research project)
 - Developed Tensorflow **Bi-LSTM** model for entity recognition (**0.93 F1**); Used **Tesseract** & **OpenCV** for OCR
 - Created word embedding by concatenating **GloVe** embedding & outputs from another **Bi-LSTM** layer trained on **character embedding** of the word's characters
 - Created **Flask** application to load invoices in batch, extract, check and update information
- **Automated Contract Review** (Independent research project)
 - Built layer of models to first identify risky clauses using **BERT** (**0.84 F1**); then classify it into 8 types (**0.91 F1**)

Data Scientist, ZS Associates

Jul 2016 - Jul 2019

- Among top **10%** of the batch to receive promotion in 4 semesters
- Initiated and led a program to automate tasks by creating libraries and products
- Trained colleagues, including seniors, on R programming, Genetic Algorithm, and Machine Learning

Key projects

- **Next Best Action** – Improved sales by **4%** and marketing channel engagement by **25%**
 - Optimized sequence of marketing channels, personalized for each customer & subject to constraints
 - Used **Genetic Algorithm** with Deep Learning (**CNN+Dense** layer) model as its fitness function
 - Applied **Collaborative Filtering** to find customer's affinity for each marketing channel
- **Attribution Modeling App** – Cut down timelines by **1-2 weeks**; Acquired new businesses
 - Independently created R package & R Shiny App to automate data processing, exploration & modeling

Other Projects - used CART, Random Forest, XGBoost, GLM, Markov Chain

R Programming Instructor, Wiley India Pvt. Ltd.

Apr 2019 - May 2019

Summer Intern, Tata Research Development and Design Centre

May 2015 – Jun 2015

- Developed a data simulator in MATLAB to generate 72 metrics and analyzed it using Factor Analysis

PROJECTS

- Published **R package 'analyzer'** on **CRAN** (official R repo). It automatically generates notebook with pre-written codes to analyze data using **15+** statistical tests, plots, preliminary models, and variable selection
- **SPOT** (Safest Path Optimizing Tool) - Created an app to determine safest travel path utilizing **Dijkstra's** algorithm; App generates alerts when the driver is near accident-prone zones (**Kernel Density Estimation**)
- Built **recommender** system using **SVD**, **regularized SVD**, **Collaborative filtering**. Designed incremental method to handle new ratings - For **250** (15%) new movies, re-training took **3%** of original time; Error increased by **0.2%**
- **Travelling Salesman Problem** using Genetic Algorithm - coded from scratch, compared different operator types

CORE SKILLS

Python, Flask, Tensorflow, Keras, R, R Shiny, D3, SQL, MATLAB, MS Excel, HTML, CSS, git, C++, Hadoop

AWARDS AND HONORS

- Won **ZS Innovator of the Month**
- **ZS Hackathon** – Best ROI & Technical Feasibility
- Amgen Hackathon - Secured a full project for ZS
- Won **ZS best project of the year**
- Ranked **1st** among 5000+ participants in the National Level Data Science Challenge