Sandip Sonawane

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in Sandip-Sonawane

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EDUCATION

University of Illinois at Urbana-Champaign

Urbana, IL

Masters of Science in Statistics (GPA: 4/4) with specialization in Analytics

Jan 2021 - Dec 2022

- Coursework: Applied Regression, Statistical Learning, Stats & Prob II, Algorithms for Data Analytics, Mathematical Statistics
- Teaching Experience: Graduate Teaching Assistant, course: CS 598- Foundations of Data Curation

College of Engineering, University of Pune

Pune, India

Bachelor of Technology in Mechanical Engineering (GPA: 8.6/10)

Aug 2014 - May 2017

• Relevant Coursework: Linear Algebra, Numerical Methods, Optimization, Calculus, Statistics, Probability, Hypothesis Testing

EXPERIENCE

University of Illinois at Urbana-Champaign

Urbana, IL

Research Assistant at Grainger College of Engineering

Feb 2021 - July 2021

- Established a full stack web application to predict risk of railway track failure using Python and Django framework
- Automated data collection, analysis and prediction process using Python, cutting down manual efforts by 99%

Eaton Research Labs

Magarpatta City, Pune

Data Scientist

May 2019 - Dec 2020

- Applied unsupervised learning to identify patterns in 20k engineering drawing files, implemented a **Support Vector Machines** model to classify drawing templates
- Set up an end-to-end pipeline using **Python**, fetching input files from PLM databases to extracting Material and Finish information utilizing **Google's Tesseract Engine** for OCR with 94% accuracy resulting in an annual savings of **\$0.5M**
- Created labeled dataset of 12k samples, cleaned text using **NLTK**, **RegEx** to build supervised learning model for classification of incoming email type using SVM
- Established pipeline to generate email response as per class with 96% accuracy and min. F1 score of 85% for all classes
- Developed Python software with graphical user interface using Tkinter realizing in estimated annual savings of \$0.1M

Software Development Engineer

Dec 2017 - Apr 2019

- Deployed full stack web applications using Django at backend, JavaScript, CSS, HTML at frontend
- Designed database models with relational SQL for environmental compliance request management as per requirements
- Automated manual processes using **Python**, **JavaScript** to increase efficiency, created an interactive user interface with standalone software, achieved **\$0.4M** annual savings

PROJECT HIGHLIGHTS

Top skills employers look for- Repository

July 2021 - Aug 2021

- Crawled over 15000 job postings from Amazon Jobs and Facebook Jobs for different job categories using **Python and Selenium**, cleaned and processed raw text data to identify top 20 skills for each job category
- Built an interactive dashboard using **plotly dash** with wordcloud, plotly charts, table; deployed on AWS

Effects of diet on boosting immunity against Covid-19- Report

Feb 2021 - May 2021

• Performed analysis data from 165 countries, variable selection, modeled **parametric** and **non-parametric regression** algorithms with cross-validated RMSE of 0.035 using **Extreme Gradient Boosting Machines** algorithm in **R**

Credit Card Fraud Detection-Report

Mar 2021 - May 2021

• Analyzed European credit card data from Kaggle containing 284k transactions to detect fraud; performed variable, model selection using **R**; Assessed **Logistic**, **KNN**, **Decision Tree** models, achieved C-V ROC curve area of 99.73 with **Xgboost** algorithm

SKILLS

- Programming: Python (Pandas, Numpy, Tensorflow, Keras, Sklearn, Matplotlib, Plotly, etc.), R, SQL, JavaScript, VBA
- Database, Visualization, Web Development Technologies MySQL, Plotly, Power BI, Tableau, Django, VanilaJS, HTML, CSS
- Other Tools: Pycharm, Jupyter Notebook, VS Code, Jira, Miro, GIT, Slack, Microsoft Office

OTHER ACHIEVEMENTS

• Received 3 employee of the month awards, 6 E-stars, recognition for mentoring a team of 5 members from project leaders, stakeholders at the innovation center, Pune

Dec 2017 - Dec 2020