

Nikhil Tilak, Ph.D.

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SUMMARY

Postdoc in Physics with 8+ years of research experience. Highly skilled at analyzing data and summarizing findings. Experienced in numerical and machine learning techniques using Python and always working to expand my skill set. Pursuing data scientist positions.

SKILLS

Languages & platforms: Python, C, SQL, HTML, CSS, Git/Github.

Python packages: NumPy, SciPy, Pandas, Scikit-Learn, OpenCV, NLTK, TensorFlow.

Machine learning: Linear/Logistic regression, KNN, SVM, PCA, Random Forests, XGBoost, NLP.

DATA PROJECTS

Bookend : predict author from text snippet

[repo](#), [video](#)

Trained an ensemble classifier model on books scraped from project Gutenberg to predict the authorship of a snippet of text with 93% accuracy.

Led a team of four and was responsible for dividing tasks and establishing a GitHub-based workflow to maximize productivity. Implemented a bag-of-words model which gave the highest prediction accuracy score (85%) among the models in the ensemble.

Project placed first in the final project competition of Erdos data bootcamp 2020.

Sudoku-Solver: solve a Sudoku puzzle given its picture

[repo](#), [webapp](#)

Wrote a custom pipeline which processes the image, identifies the filled digits and produces a solution.

Deployed a Docker containerized Dash/Plotly app to Google Cloud (GCP).

BreweryXplorer: explore 3000+ breweries in the US

[repo](#), [webapp](#)

Scraped and cleaned unstructured brewery data from Wikipedia and other open sources.

Designed an interactive Dashboard using Dash/Plotly which was deployed to Heroku.

IMDB Movie review sentiment analysis

[Kaggle kernel](#)

Used a word2vec model trained on movie reviews to generate semantic word embeddings.

Trained a neural network to predict if a given movie review is “positive” or “negative”.

EXPERIENCE

Postdoctoral Associate, Rutgers University, New Jersey, USA.

07/2023 - present

Physics Faculty, Bakliwal Tutorials, Pune, India.

06/2014 - 05/2015

BOOTCAMPS and CERTIFICATES

Erdos institute data science bootcamp (First place winning final project.)

05/2020 - 07/2020

Applied data science with Python. (Univ. of Michigan on Coursera)

01/2020 - 06/2020

EDUCATION

Ph.D. in Physics, Rutgers University, New Jersey, USA.

09/2015 - 06/2023

B.Tech. in Engineering Physics, I.I.T. Guwahati, Assam, India.

08/2010 - 05/2014