

Akhil Jalan

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SUMMARY

Aspiring data scientist with a passion for communicating and sharing ideas. Experienced in applied machine learning and statistical programming through several projects using real-world data. Adept in all aspects of the data science process, including data collection, cleaning, visualization, analysis, and communication.

EDUCATION

University of California, Berkeley (Class of 2019)

GPA: 3.97

B.A. Applied Mathematics (Concentration: Data Science), B.A. Computer Science

Regents' and Chancellor's Scholar, Class of 2019 (Awarded to top 2% of undergraduates)

WORK EXPERIENCE

Software Engineering Intern

Sunnyvale, CA

Hashcut

May 2017-August 2017

- Saved 100+ hours of time by proposing and implementing video contest automation, using Javascript jQuery and HTML Bootstrap
- Generalized video ingestion from multiple sources (YouTube, Vimeo, Twitch) using a custom-defined scheme in MongoDB database
- Utilized YouTube API to ingest user data automatically

PROJECTS

Machine Learning for Counterterrorism (Team of 3)

- Predicted success rates of terrorist attacks with 93% accuracy using random forest model
- Improved random forest, neural network prediction accuracies 1%, 5% via cross-validation
- Extracted salient features for successful attacks in random forest and regression models

Natural Language Processing for State of the Union Speeches (Team of 3)

- Predicted correct President to deliver an official address with 76% accuracy using K nearest-neighbors model
- Improved K nearest-neighbors accuracy 9% by cross-validating number of neighbors (K)
- Mapped similarity of Presidents via dimensionality reduction (MDS)
- Tokenized and stemmed corpus of over 200 speeches to create speech-vector representation

Political Partisanship: A Look at the Data (Individual)

- Found statistically significant ($p\text{-value} < 0.001$) growth in ideological separation between parties in US House and Senate, using Spearman non-parametric correlation coefficient
- Published in Towards Data Science with over 250 reads

TECHNICAL SKILLS

Languages: Python, R, SQL, Java, MATLAB, Bash, Javascript, HTML5, LaTeX

Libraries: Scikit-learn, Keras, Tensorflow, Pandas, Numpy, Scipy, Matplotlib, Plotly, Seaborn, Scrappy, Natural Language Toolkit (NLTK)

Tools: Tableau, Jupyter Notebooks

Selected Coursework: Machine Learning (A), Linear Algebra (A+), Algorithms (A), Probability (A+)

Interests: Cooking, Podcasts, Chess, Hiking, Coffee