Akhil Jalan

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EDUCATION

University of California, Berkeley (Graduation: May 2019) **GPA: 3.95/4.00**
B.A. Applied Mathematics (Concentration: Machine Learning), Highest Honors

HONORS AND AWARDS

2nd Place Team, Citadel West Coast Summer Invitational Datathon (50+ teams). Summer 2018.
Finalist Team, Data for Good Competition, UC Berkeley Center for Technology, Society, and Policy. Spring 2018.

WORK EXPERIENCE

Software Engineer Palo Alto, CA
WeWork, Research and Applied Sciences Team August 2019-Present

- Automated 5-component ensemble model to score potential WeWork locations for (i) demographics, (ii) amenities, (iii) employers, (iv) market quality, and (v) feature fit, in order to asses economic occupancy
- Integrated Flask API with external deal-tracking Graph QL service to schedule automatic deal scoring
- Scored >50,000 unique US/Canada sites for potential economic value as co-working buildings

Data Science Intern Foster City, CA
Agari June 2018-August 2018

- Cross-validated machine learning models (logistic regression, random forest) to achieve 72% test accuracy for new subject-line feature in email risk model
- Analyzed 10 million+ emails in Spark for nickname impostor detection
- Tested high-dimensional word embeddings of (word2vec, GloVe) for feature engineering of subject lines

Undergraduate Researcher, Multiple Projects Berkeley, CA
Professors A. Sahai, G. Ranade, N. Srivastava February 2018-May 2019

- Implemented Recurrent, Bidirectional Long Short Term Memory (LSTM) neural networks to learn 100% accurate radio demodulation schemes for DARPA research challenge
- Found approximately optimal hospital placements across 18 distinct objective functions

Software Engineering Intern Sunnyvale, CA
Hashcut May 2017-August 2017

- Proposed and created video contest automation algorithm using Javascript jQuery and HTML Bootstrap

PUBLICATIONS

1) Some New Numeric Results Concerning the Witsenhausen Counterexample. Subramanian et al. 2018 56th Annual Allerton Conference on Communication, Control, and Computing (Allerton). IEEE, 2018.
2) (Under Review) "Equity Across Demographic Groups for the Facility Location Problem." Gupta, **Jalan**, Ranade, Yang, Zhuang. ACM, 2020.

PROJECTS

Machine Learning for Counterterrorism (Collaborative)

- Predicted success rates of terrorist attacks with 93% accuracy using random forest model
- Isolated top-20 salient features for successful terrorist attacks in random forest and regression models

Deep Neural Style Transfer via Cyclic Generative Adversarial Networks (Collaborative)

- Fine-Tuned image style transfer network using 3 ensemble convolution neural networks (CNN) for generalized neural style transfer in cycle-GAN framework

TECHNICAL SKILLS

Languages: Python (most proficient), Java, R, Julia, MATLAB, Javascript
Tools (Software): GraphQL, Flask, SQLAlchemy, Docker, Kubernetes, Helm
Tools (Data Services): Spark, Amazon Web Services (AWS) S3, AWS EC2, Google Cloud Compute