Last Updated on 16th February 2021
github.com/jaidhyani/resume

Jai Dhyani

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PROJECTS

Uncropping | 2021 (Ongoing)
Attempting to improve on current methods for extrapolating images outside of the frame ("uncropping") by integrating recent CV developments into an encoder/decoder + GAN architecture in Pytorch. Work in progress.

ML Consulting | 2020-2021 (Ongoing)
Contracting with businesses and organizations to improve in-house data and ML pipelines.

BallotDropoff | 2020
Volunteering for TechForCampaigns alongside other engineers, built webapp to locate ballot dropoff locations for the 2020 General Election. Built data pipelines ingesting from multiple sources, location and schedule parsing, user jurisdiction identification logic, per-jurisdiction ballot submission logic. Handled all data for FL and GA. Over 200,000 voters assisted. Expected to be open sourced by 2022.

Prediction Market Analysis | 2016
Solo big data project analyzing every trade every made on a prediction market. Identified probable inefficiencies. github.com/jaidhyani/IntradeAnalysis

Powershame | 2013
Solo built app + backend; Show your friends what you did all day to discourage slacking. (no longer active) github.com/jaidhyani/powershame-site

Computational Linguistics REU @ UChicago | 2007
Speech synthesis in tonal languages

DIMACS REU @ Rutgers | 2006
Applications of SVMs in Seizure Prediction

EDUCATION

UNVERSITY OF CHICAGO
Computer Science
Undergraduate | Class of 2010

- Concentration: Artificial Intelligence
- Revived then-defunct ACM and served as treasurer

EXPERIENCE

FACEBOOK | Hate Speech Engineering
2017 - 2020: Software Engineer - Machine Learning & Infrastructure

- Developed Facebook's first proactive hate speech classifiers to identify violations of FB's Community Standards
- Developed language and region-specific classifiers to address unique market challenges
- Built optimized models to run billions of times per day
- Integrated computer vision signals to create multi-modal classifiers
- Integrated highly-multi-lingual transformers to improve classifier performance (XLM-R)
- Identified and addressed novel issues in existing training pipeline infra causing unintended classifier behavior
- Built custom volume-adjusted thresholding system to optimize use of labeling resources
- Developed stratified offline datasets to enable rapid testing and iteration.
- Developed fully-automated classifier iteration and deployment pipeline capable daily updates across multiple languages with A/B tested pilot models
- Surfaced issues impacting user well-being

LENDINGROBOT | Peer Lending Investments
2016 - 2017: Senior Backend Engineer; Financial Data Analyst

- Delivered **machine-learning investment strategy** for world's first peer-lending robo-fund
- Delivered weekly reports to CEO detailing investment progress and recommending improvements
- Built framework to develop, test, analyze, and compare investment strategies
- Automated collection of historical and live data from multiple peer-lending marketplaces to enable more accurate analysis
- Delivered consistent **5+% returns** on automated investments
- Invested over $50 million on behalf of clients
- Notarized investment records on the Ethereum blockchain

AMAZON | AWS Networking
2014 - 2015: Systems Engineer II

- Reduced testing cycle from **weeks** to **hours** by aggressively automating test processes, enabling faster deployments with higher confidence so that AWS and amazon.com can continue to scale under accelerating demand
- Built custom tools to automate management of highly specialized hardware.
- Conceived/built/deployed novel Docker deployment to remove a hardware bottleneck by isolating network activity per interface

DEMOCRATIC NATIONAL COMMITTEE | Systems Engineering
2011 - 2013 : Linux Systems Engineer | 2013 : Lead Systems Engineer

- Built, deployed, and proactively responded to thousands of custom metrics to maintain voter databases, application backends, databases, email, and other critical campaign infrasturure 24/7
- Revamped backup system to achieve better fidelity, 2x cheaper and 3x faster
- Delivered empirical cost-benefit analysis between different deployment strategies, saving hundreds of thousands of dollars
- Built system to capture nightly snapshots of web pages and compare differences across time; Used by researchers, national debate prep