

# Kian Ghodoussi

Los Angeles, California

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## Education

### University of Southern California

2021

B.S. IN COMPUTER SCIENCE AND MATHEMATICS

3.85 GPA

- Presidential Scholar: Merit Scholarship awarded to top 5% of incoming Freshman class
- Coursework: Data Structures and Algorithms, Object Oriented Programming, Discrete Math, Principles of Software Development, Analysis of Algorithms, Embedded Systems, Computer Systems Organization, Linear Algebra, Probability Theory

## Work Experience

### Quora

Mountain View, CA

MACHINE LEARNING ENGINEERING INTERN

May 2019 - August 2019

- Migrated ads features pipeline from RedShift to Spark.
- Reduced ads features pipeline run time from 14 hours to 6 hours while reducing infrastructure costs by 68%.
- Increased Global Click-Through-Rate by 1.3% due to reduction in feature staleness.
- Deployed bad neural network model detection to ads' model training pipeline. Reduced instances of bad model deployment by 37%.

### Invoca

Santa Barbara, CA

DATA SCIENCE INTERN

May 2018 - August 2018

- Worked on SignalAI platform. Tasked with optimizing machine learning algorithms in order to maximize client advertising revenue.
- Developed a new word embedding algorithm that outperforms Google's industry standard Word2Vec model by a factor of 500. Beat industry benchmark of synonym and transcription error detection by 73%. Leveraged this machine learning model to detect mislabelled data points.
- Developed novel document classification methodology that leverages Word Embeddings to reduce training set size requirements by 80%.

### Corto.ai

Los Angeles, CA

DATA SCIENCE INTERN

Jul. 2018 - December 2018

- Worked with Sony music to understand what makes people love music.
- Developed unsupervised learning models for lyric segmentation and signal analysis.
- Developed metrics to normalize cross-platform social media data. Leveraged social media and audio data to predict song popularity.
- Successfully predicted song popularity to 60% accuracy.

### Signal Analysis and Interpretation Lab

Los Angeles, CA

MACHINE LEARNING RESEARCHER

October 2017 - April 2018

- Developed a Forced Alignment library (Canetis) that outperforms industry standard libraries such as Gentle by a margin of 15-25% higher accuracy. Library available at [github.com/nsheth12/canetis](https://github.com/nsheth12/canetis)

## Projects: Read more @ [www.datawithasmile.com](http://www.datawithasmile.com)

### Aperio

2ND PLACE OVERALL AT ANNUAL UCLA HACKATHON 2018

2018

- Developed Deep Convolutional Neural Network frame interpolation algorithm. Smoothens video quality and enables higher resolution streaming services. Read more at: <https://devpost.com/software/aper-io>

### CleanBeats.ai

2ND PLACE OVERALL AT ANNUAL UC SANTA BARBARA HACKATHON 2018

2018

- Developed Machine Learning model that automatically dubs out expletives in audio files.
- Built a data pipeline to train a style-transfer Generative Adversarial Neural Network for smooth audio replacement.
- Read more at: <https://devpost.com/software/cleanbeats-ai>

### Crystallize

WINNER AT STANFORD'S TREEHACKS 2019

2019

- Compressed image super-resolution machine learning model from 48Gb to 7Kb in order to run in real time.
- Read more at: <https://devpost.com/software/crystallize>

## Skills

### Programming Languages

Python, SQL, Java, C, C++, Bash, MatLab, JavaScript, HTML, CSS, LaTeX

### Frameworks

TensorFlow, Spark, AWS, Google Cloud, NoSQL, MongoDB, git, Flask

### Machine Learning

Natural Language Processing, Computer Vision, Bayesian Analysis, Deep Learning, Meta-Optimization

## Publications

2018 **1st Author**, Deep CNN Frame Interpolation with Lessons Learned from Natural Language Processing

[LINK](#)