# **Ethan Kim**

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#### **EXPERIENCE**

#### **CYNDX**

#### **Data Scientist**

Nov '21 -

NLP Algorithms

#### **ORACLE**

#### **Data Science Intern**

May '21 - Aug '21

- Design and Implement architecture to Incorporate SHAP valuebased model interpretability into Oracle's Marketing ML platform
- Deploy explanation capability for 6+ internal models including XGBoost, Random Forest, and NLP models
- Research and Implement methods to explain Recommender Systems
- Achieve 83% explainability precision for Latent Factor Models

#### HARVARD AI4LIFE LAB

Aug '21-Present

#### Research Assistant

ML interpretability research with professor Hima Lakkaraju

# **THINKCERCA**

#### **Data Science Consultant**

May 21 - Present

Fine-tune BERT models for Automatic Essay Scoring and Feedback
 BGI LLC

### **Data Science Intern**

Sep '20 - Jan '21

 Develop transfer learning and data augmentation techniques for Speech to Text Transcription using Mozilla DeepSpeech to achieve over 90% Character Accuracy Rate

## HARVARD COLLEGE DATA ANALYTICS GROUP

# **Director of Consulting**

Aug '20 - Present

- Manage 24+ Data Science consulting teams working with nonprofits, startups, and Fortune 500 companies
- Sourced clients to help student club grow 5x to 100+ members with \$130,000 in revenue
- Provide technical guidance to case teams on projects ranging from marketing analytics to using NLP to scrape financial databases to billing anomaly detection

#### Case Team Leader

Jan '20 - May '20

- Lead team of six on Data Science research project for a sports analytics company
- Develop win probability prediction models for soccer matches that achieved high Ranked Probability Scores with faster prediction time than existing models

#### Coronavirus Response Team

May '20 - June '20

 Collaborate with Brigham and Women's Hospital to create data visualizations for a high impact COVID paper (JAMA IM)

#### **BRAINSPEC**

#### **Data Science Intern**

May '20 - August '20

 Create Python data processing pipeline to analyze changes in brain spectra due to PTSD and concussive injury

#### **EDUCATION**

#### HARVARD UNIVERSITY

# Bachelor's in Statistics, Secondary in

# **Computer Science**

**Graduation December 2021** 

GPA: 3.73/4.0

SAT: 2370/2400 (V800, M800, W770)

#### **COURSES**

Deep Learning, Data Structures and Algorithms, Data Science, Time Series, Probability, Inference, Linear Models, Generalized Linear Models, Computational Biology, Parallel Computing, Natural Language Processing

#### **SKILLS**

Python, Scikitlearn, TensorFlow, Pytorch, Dask, XGBoost, SQL, R, git, PySpark, Docker, AWS PUBLICATIONS

## Google Big Bench

• Contribute to suite of NLP Benchmarks

# **PROJECTS**

# **Current Projects:**

- Solo paper applying wav2vec to novel audio classification problem
- Research parameter efficient techniques for few shot learning in NLP

#### **Involution**

 Pytorch implementation of Convolutional Operator alternative

# Parallelizing OpenCV for Real Time Object Tracking

 Use OpenMP to Parallelize multiobject tracking across multiple cores to run in real time

#### Impact of Weather on Social Distancing

- Scrape county level weather data to evaluate relationship with social distancing indices
- Use LSTM models to predict rates of coronavirus spread

# Detection of Cell Cycle Genes and Regulators in S. Cerevisiae

 Time series analysis on mRNA expression data in yeast to identify key cell cycle proteins

### Training an AI to play Incan Gold

Implement playable version of Incan Gold

Interests: Harvard Club Soccer, Harvard Square Homeless Shelter

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 Al trained on winning moves from thousands of games achieved 150% increase in win percentage