CONNER DIPAOLO

http://dipaolo.xyz – cdipaolo96@gmail.com – (949) 300 3774

EXPERIENCE

Yelp – *San Francisco, CA* June 2019 - Present
Applied Scientist – Pricing and Revenue Optimization

- Designed and implemented the experimental treatment within a project expanding off-Yelp advertiser audiences, reducing Yelp's cost per advertising click by >35% and fulfilling >15% more budget.
- Proposed and led an effort to collect randomized price recommendation data for Yelp's advertising product, facilitating training an uplift (RL) model for dynamic pricing now worth millions of dollars in yearly revenue.
- Initiated and led a company-wide transition towards more efficient statistical estimators to measure subscriber retention and revenue, which decreased A/B test runtime by 15 days (12-16% faster than the status quo.)

Jet Propulsion Lab – *Pasadena, CA* June 2018 - August 2018
Research Intern – Deep Space Optical Communications

- Mathematically developed improved statistical algorithms for ground communications receiver control which are currently implemented in hardware and slated to join the 2022 Psyche mission to an asteroid near Mars.

Yelp – *San Francisco, CA* May 2017 - August 2017
Machine Learning Intern – Advertisement Optimization

- Architected and productionized a deep learning model used to select between millions of advertisement photos.
- Generated a statistically significant 4.5% lift in advertisement click-through rate over status quo photo selection.

Yelp – *San Francisco, CA* May 2016 - August 2016
Machine Learning Intern – Spam Detection

- Increased out-of-sample Matthews Correlation of a spam detection model by 25.7% over the status quo model on points detected by humans as 'difficult to classify' by running a principled model search.
- Primary author of a service marshalling over 350,000 Kafka messages/day into MySQL tables for four teams.

PUBLICATIONS

A Randomized Algorithm for Preconditioner Selection arxiv.org/abs/1908.00633
By Conner DiPaolo and Weiqing Gu. Pre-print. August 2019.

- Created state-of-the-art preconditioned solver for kernel regression using our preconditioner selection algorithm.

Signal Intensity Deconvolution in Optical Receivers doi.org/10.1109/LCOMM.2019.2912382
By Conner DiPaolo and Ryan Rogalin. IEEE Communications Letters. July 2019.

- Developed the first consistent algorithm for estimating the center of a discretized communications beam.

OPEN SOURCE

GOML github.com/cdipaolo/goml
Creator - Second most starred Golang machine learning library on Github with $> 1,000$ *stars.*

- Developed the only ML library using Golang data channels to train models in an online and parallelizable way.

SKILLS

Programming Languages: Python, SQL, R, Golang, Matlab
Tools & Technologies: Numpy, SciPy, Pandas, Apache Spark, Redshift, Git, SciKit-Learn, PyTorch

EDUCATION

Harvey Mudd College – *B.S. Mathematics with Departmental Honors* *3.84 GPA, 3.88 In-Major GPA*