

CAT P. LE

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SUMMARY

Machine Learning Scientist with 5+ years of experience developing neural network models and learning algorithms in computer vision and natural language processing. Experienced in data analysis, image classification & generation, object detection, and time-series regression. Proficient in collaborating with coding teams to develop large-scale AI applications.

Education

DUKE UNIVERSITY

Ph.D., Electrical and Computer Engineering
Thesis: Task Affinity and Its Applications in Machine Learning
Advisor: Dr. Vahid Tarokh

Durham, NC
May 2023

CALIFORNIA INSTITUTE OF TECHNOLOGY

M.S., Electrical Engineering, GPA: 4.00
Advisor: Dr. Babak Hassibi

Pasadena, CA
Jun 2017

RUTGERS UNIVERSITY

B.S., Electrical and Computer Engineering, GPA: 4.00
Honors: Summa Cum Laude, Matthew Leydt Society, John B. Smith Award, Tau Beta Pi

New Brunswick, NJ
Jun 2017

Experience

AMAZON

Research Scientist

- Analyze open-domain dialogs with the sentiment, relevance, and specificity analysis models.
- Develop dialog evaluation systems with BERT, LSTM, and causal inference analysis.
- Help improve the prediction performance for the customer's and expert's ratings.

Arlington, VA
Jun 2022 – Sep 2023

MOTOROLA SOLUTIONS

Software Engineer

- Develop a Camera Shutter Synchronization System with LED Strobing for cameras.
- Optimize the Optical Character Recognition algorithm of the license plate recognition cameras.
- Improve the energy consumption and the performance of the license plate and facial recognition cameras.

Dallas, TX
Jun 2017 – Aug 2018

Recent Publications

Improving Open-Domain Dialog Evaluation with a Causal Inference Model

Cat P. Le, Luke Dai, Michael Johnston, Yang Liu, Marilyn Walker, Reza Ghanadan

IWSDS 2023
Best Paper Award Runner-Up

Task Affinity with Maximum Bipartite Matching in Few-Shot Learning

Cat P. Le, Juncheng Dong, Mohammadreza Soltani, Vahid Tarokh

ICLR 2022

Fisher Task Distance and Its Applications in Neural Architecture Search

Cat P. Le, Mohammadreza Soltani, Juncheng Dong, Vahid Tarokh

IEEE Access 2022

Task-Aware Neural Architecture Search

Cat P. Le, Juncheng Dong, Mohammadreza Soltani, Vahid Tarokh

ICASSP 2021

Causal Knowledge Transfer from Task Affinity

Ahmed Aloui, Juncheng Dong, Cat P. Le, Vahid Tarokh

Submitted to UAI 2023

Skills

Technical: Python, C++, Matlab, Numpy, Scipy, Scikit-learn, Pandas, Matplotlib, OpenCV, Tensorflow, Keras, Pytorch

Research Area: Computer Vision, Neural Architecture Search, Natural Language Understanding

ML Framework: Transfer Learning, Continual Learning, Few-Shot Learning, Reinforcement Learning