Raymond Y. Xu

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Skills

Machine Learning, Python, Tensorflow, NLP , CNNs, C++, Bash, Linux

Technical Experience

Machine Learning Software Engineer

Google — Mountain View   May 2022 - Present

· On Google assistant NLP team for language parsing improvement on voice commands.

· Improved large language BERT model embeddings for understanding similar queries on new text parses.

· Created ML pipelines for running experiments for new model features.

Google — Kirkland, WA / Remote   October 2020 - May 2022

· On the Document AI product team, developing NLP products for analyzing text on forms and other documents.

· Primary work was on ML entity extraction, ML infrastructure and testing.

· Pretrained BiLSTMs on big data for improved performance using spatial features on invoices.

· Brainstormed and conducted experiments to improve fine tuning and tokenization elements of the modeling pipeline.

Founder   May 2020 - October 2020

Denread — Remote at Antler Incubator

· Built chrome extension, Denread, allows users to click a website paragraph to drop down similar web text.

· Universal sentence encoder & approximate nearest neighbor search for NLP feature comparison.

· JS frontend, django and simple tensorflow serving backend, hosted on Google Cloud Platform (GCP).

Machine Learning Perception Engineer   July 2018 - May 2020

Johns Hopkins Applied Physics Lab — Laurel, MD

· Worked on small teams on Navy research contracts related to imaging software and visual based navigation.

· Held secutiy clearance, led an internal research project to capture underwater images and extract depth information.

· Created a orientation prediction network, predicting which way boats were facing based on images of them.

· Designing and improving web and offline auto-annotation tools for detection, segmentation, and orientation.

· Built detection systems for boats in long range infrared imagery in C++, training models in tensorflow.

Master of Engineering Design Project: Machine Learning   August 2017 - May 2018

Sabuncu Lab — Cornell University

· Image registration of 3D brain MRIs using feature comparison in a siamese neural network.

Other Experience

Volunteer Program Manager   October 2020 - March 2021

Humanity Forward — Part Time, Remote

· Coordinating calls voters for political candidates and calls to small businesses for petitions.

Education

Cornell University, College of Engineering, Ithaca, NY

Master of Engineering in Electrical and Computer Engineering   2018
Bachelor of Science in Electrical and Computer Engineering   2017

Personal Interests

Political Activism: Calls, door knocking during election cycles   July 2018 - Present

Classical Guitar: Performed at Cornell's 13th president inauguration faculty reception, Cornell Perkins Prize

Rap: I rap, make rap music, and film music videos