Wilson Yan

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Education

University of California, Berkeley, PhD in CS — August 2020 – (Expected) May 2025

GPA: 3.89 / 4.00

- I am broadly interested in generative models and representation learning applied to language and vision. My current research interest is in video generation, with recent work more focused on building more efficient and scalable video models.

University of California, Berkeley, B.A. in CS and Applied Math — August 2016 – May 2020

GPA: 3.97 / 4.00

WORK EXPERIENCE

Research Intern, Perplexity AI (stealth mode startup) — October 2022 – Present

- Working on training and fine-tuning Large Language Models
- Experimenting with prompting and retrieval mechanisms to improve generation quality

Undergraduate Research Assistant, Robot Learning Lab (BAIR) — January 2018 – May 2020

- Worked on developing novel methods to speed-up big batch reinforcement learning using parameter noise for regional gradient estimates in parameter space
- Used PPO to create a control policy that optimizes job allocation on chips. Key challenge was to solve a long horizon problem with difficult to learn credit assignments. Experimented with different attention mechanisms and architectures to improve credit assignment
- Worked on generative modeling and Fisher scores, and deformable object manipulation

Data Science Intern, Percolata — May 2017 – August 2017

- Heavily contributed to re-designing the new backend of their application by recreating and reintegrating each of its main components
- Analyzed the quality of prediction of their ML model and identified bottlenecks in their pipeline
- Redesigned the machine learning pipeline to streamline training and test of new models

RESEARCH

Temporally Consistent Video Transformer for Long-Term Video Prediction (paper)(website)
Wilson Yan, Danijar Hafner, Stephen James, Pieter Abbeel (In Submission)

Patch-based Object-centric Transformers for Efficient Video Generation (paper)(website)
Wilson Yan, Ryo Okumura, Stephen James, Pieter Abbeel (In Submission)

VideoGPT: Video Generation Using VQ-VAE and Transformers (paper)(website)
Wilson Yan, Yunzhi Zhang*, Pieter Abbeel, Aravind Srinivas (Preprint)*

Learning Predictive Representations for Deformable Objects Using Contrastive Estimation (paper)
Wilson Yan, Ashwin Vangipuram, Pieter Abbeel, Lerrel Pinto (CoRL 2020)

Learning to Manipulate Deformable Objects without Demonstrations (paper)
Yilin Wu, Wilson Yan*, Thanard Kurutach, Lerrel Pinto, Pieter Abbeel (RSS 2020)*

Natural Image Manipulation with Autoregressive Models using Fisher Scores (paper)
Wilson Yan, Jonathan Ho, Pieter Abbeel (Preprint)