Chris Hoang

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EDUCATION

New York University Sep 2023 – May 2028
Ph.D. in Computer Science (3.89/4.00 GPA)
- Advised by Mengye Ren

University of Michigan Sep 2016 – May 2020
B.S.E., M.S.E. in Computer Science and Engineering (4.00/4.00 GPA)
- Advised by Honglak Lee and Michael P. Wellman

HONORS AND AWARDS

NDSEG Fellowship ($130,000 award) 2024 - 2027
Tuck & Ham-Hi Lee and Sheldon Howard & Ruth Hoff Grants ($80,000 award) 2016 - 2020
D.E. Shaw Nexus Fellowship ($1,500 award) 2018
William J. Branstrom Freshman Prize (top 5% of freshman class) 2016

PUBLICATIONS

PooDLe: Pooled and dense self-supervised learning from naturalistic videos
Alex N. Wang*, **Chris Hoang***, Yuwen Xiong, Yann LeCun, Mengye Ren
Preprint

Successor Feature Landmarks for Long-Horizon Goal-Conditioned Reinforcement Learning
Chris Hoang, Sungryull Sohn, Jongwook Choi, Wilka Carvalho, Honglak Lee
NeurIPS 2021

Spoofing the Limit Order Book: A Strategic Agent-Based Analysis
Xintong Wang, **Chris Hoang**, Yevgeniy Vorobeychik, Michael P. Wellman
Games 2021

Learning-Based Trading Strategies in the Face of Market Manipulation
Xintong Wang, **Chris Hoang**, Michael P. Wellman
ICAIF 2020

RESEARCH EXPERIENCE

New York University CILVR Lab Dec 2022 – Present
Research Assistant, Advisor: Mengye Ren
- Designed a new method that unifies pooled invariance and dense SSL objectives within a spatial decoder architecture to learn visual representations for segmentation and object detection from naturalistic dense videos

University of Michigan AI Lab Jun 2019 – Sep 2021
Research Assistant, Advisor: Honglak Lee
- Led research team to develop method that leverages a latent representation of transition dynamics to abstract high-dimensional state spaces as landmark graphs, enabling exploration and long-horizon goal-reaching

Research Assistant, Advisor: Michael P. Wellman Dec 2017 – Jun 2019
- Formulated trading algorithms that can learn from market information in a manner robust to adversarial agents by analyzing simulations and equilibrium states of a multi-agent model of financial markets

INDUSTRY EXPERIENCE

The Voleon Group Oct 2020 – Jan 2023
Machine Learning Engineer
- Explored model selection, response construction, and feature engineering to improve stock return prediction
- Analyzed simulations of trading strategies to mitigate exposure to macroeconomic factors and tail-risk events

Citadel Jun 2019 – Aug 2019
Software Engineering Intern
- Developed research infrastructure, analysis tooling, and data pipelines for experimenting with real-time financial data, portfolio optimization strategies, and econometric models of market risk factors

Amazon Jun 2018 – Aug 2018
Software Development Engineer Intern

- Architected framework for executing computer vision and robotics workflows from offline learning to real-time inference, using cache-enabled task graphs and dynamic job scheduling to achieve computational scalability

PROJECTS

Reconstruction-Driven Curiosity
- Developed reward signal based on visual reconstruction to encourage exploration in Atari games

Predicting Temporal Ordering of Video Frames
- Designed temporal ordering training signal for learning motion-related features from video data

MENTORSHIP

Jenny Zhu, NYU GSTEM - *Video Semantic Labeling* 2024

ADDITIONAL

Alumnus of Thomas Jefferson High School for Science and Technology
Technical Skills: Python, PyTorch, TensorFlow, R, C++, C