

# CHRIS HOANG

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## EDUCATION

### New York University

Sep 2023 – May 2028

Ph.D. in Computer Science (3.95/4.00 GPA)

- Research focus: self-supervised learning, video representation learning
- 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)

- Research focus: deep reinforcement learning, representation learning, multi-agent systems
- 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

*ICAIIF 2020*



## RESEARCH EXPERIENCE

### New York University CILVR Lab

Dec 2022 – Present

Research Assistant, Advisor: Mengye Ren

- Explored discrete quantization and latent video prediction to learn representations for reasoning and planning
- Designed object-centric and dense losses, upsampling decoders, and data recipes for SSL on multi-object 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

**ADVISING**

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Jenny Zhu: NYU GSTEM, next AB at Harvard

2024

**ADDITIONAL**

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Alumnus of Thomas Jefferson High School for Science and Technology

Technical Skills: Python, PyTorch, TensorFlow, R, C++, C