

# The AI Arms Race

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National Security Law Works-in-Progress

# Introduction

- Artificial Intelligence
- Applications in Modern Warfare
- National Security Policy

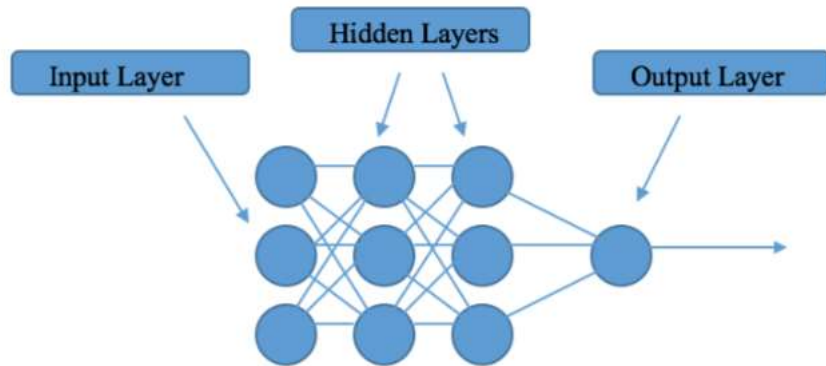
# Artificial Intelligence

- Data
- Deep Learning
- Reinforcement Learning
- Deep Reinforcement Learning

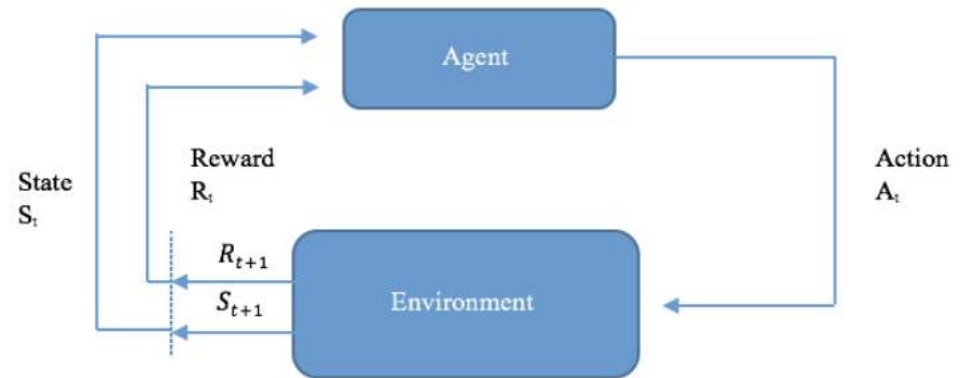


# Artificial Intelligence

## Deep Learning

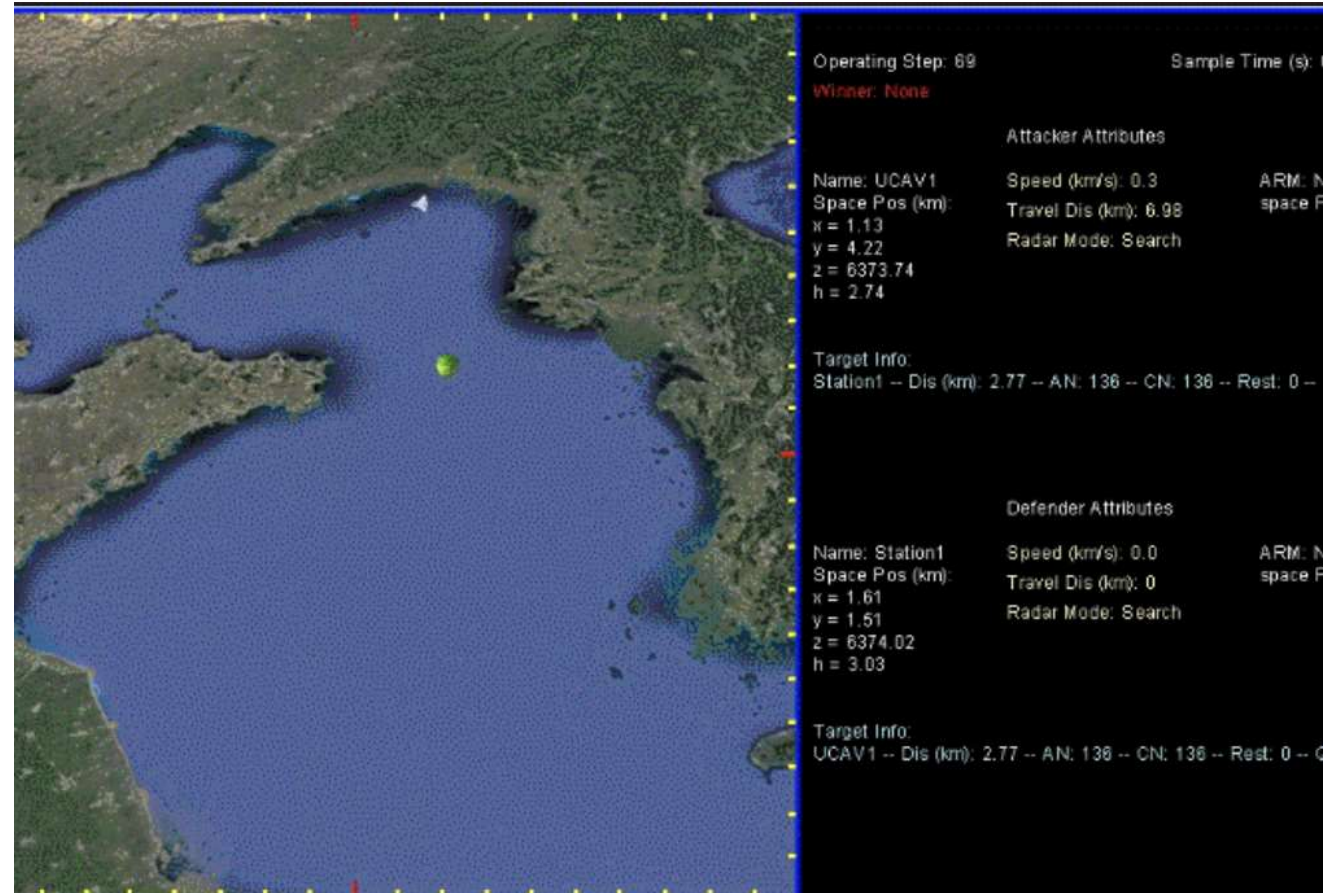


## Reinforcement Learning



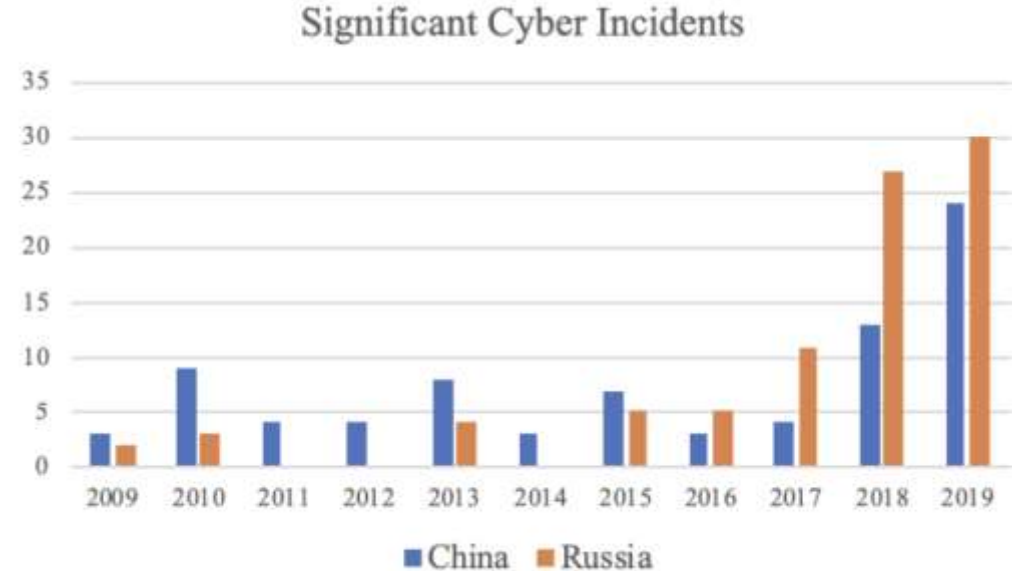
# AI Security Applications - Missiles

- DRL Missile Control
- Perception/Decision Making
- Navy AI Study
- Chinese AI Missile Study
  - Open Source – GitHub
- Generalize A to B



# AI Security Applications - Cybersecurity

- Machine Learning Models
  - Open Source – GitHub
- Social Media Manipulation
- Political Interference



# AI Security Applications - AGI

- Whole brain emulation
- Superintelligence
- Scalable DRL
- Language Processing, Understanding, Generation



“The good news, Dave, is that the computer’s passed the Turing test. The bad news is that you’ve failed.”

# China & Russia

- China

- \$150 Billion
- World Leader by 2020
- Steal U.S. Research/Patents
- Surveillance State

- Russia

- Political Interference
- IRA Social Media Manipulation
- AI for Battlefield Robotics



# United States

- National Security Commission on AI (2018)
- Executive Order (2019)
- Department of Defense
  - Beltway-Bandits
  - Military Industrial Complex
  - Fraud, Waste, Abuse
- Private Companies



# Conclusion

- Quantum Computing
- LOAR vs. Technological Stagnation
- No Government Accountability
- Mutually Assured Destruction → First Mover Advantage