Dennis Lee

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EXPERIENCE

Robot Learning Lab, University of California, Berkeley

Student Researcher *June 2016 - Present*

- Worked on three conference submissions under Professor Pieter Abbeel
- Proposed and evaluated novel neural network architectures and environments
- Developed interfaces for robot control and result visualization
- Interested in meta-learning, hierarchical learning, multi-agent environments

Goldman Sachs, Securities Division

Summer Analyst *June 2017 – August 2017*

Franchise Analytics, Strategy and Technology (FAST)

- Developed models on combined inquiry and trading data to detect cyclic patterns in client transactions
- Collaborated with floor traders to create useful and intuitive displays
- Integrated automatic live reporting with system used by all Credit teams

Systematic Market Making (SMM) Core

- Optimized microsecond latency communication with multiple exchanges
- Rewrote market data quality analyzer to eliminate garbage collector cycles
- Enabled collection of precise market data for all SMM team models

RESEARCH

Proximal Meta Policy Search *(submitted to ICLR 2018)*

- Developed novel proximal meta-policy optimization algorithm
- Performed theoretical analysis of credit assignment of objective functions in meta-learning context and corroborated with empirical results
- Released an optimized codebase for public use

Modular Architecture for Starcraft II with Deep RL *(accepted to AIIDE 2018)*

- Modular Starcraft II Zerg AI using Pytorch and PySC2 interface
- Components can be scripted, pretrained, or trained jointly with A3C
- Defeats amateur human players with equal observation and action space

Virtual Reality Learning from Demonstrations *(presented at ICRA 2018)*

- Interface for teleoperation of robots using virtual reality
- Quickly learns complex tasks from human controller
- Developed end-to-end neural network architecture with Tensorflow
- Integrated ROS and Unity, optimized GPU-based pointcloud rendering
- Platform is used for public demonstrations and complex meta-learning tasks

PROJECTS

Strategy Game AI

- AI controls an army of hundreds in a turn-based strategy game built in Java
- Genetic algorithm finds ideal army composition and tactics through self play
- Adaptable to various map conditions (different maps, fog of war)

Chrome Extension Suite

- Constantly expanding set of Google Chrome extensions
- Simplified various menial tasks
- Exercise alarm, website blocker, champion.gg quicksearch, and several jokes

EDUCATION

UC Berkeley

B.S., Electrical Engineering and Computer Science (EECS)
Major GPA: 4.00
Graduation Spring 2019

SKILLS AND INTERESTS

Programming Languages

Python	Matlab
Java	Scheme
C#, C, C++	Go

Other Technologies

Pytorch	ROS
Tensorflow	Docker
Unix	ANSYS Fluent
Unity	Solidworks

Awards

EECS Honors Program
Eta Kappa Nu (HKN) Honors Society
Collegiate All-West and All-American Archery Teams

Interests

Archery
Soccer
Climbing
Video Games
Aquariums
Reinforcement Learning
Artificial Intelligence

COURSES

Data Structures
Algorithms
Machine Learning
Operating Systems
Computer Security
Computer Architecture
Artificial Intelligence
Computational Biology
Deep Reinforcement Learning
Probability & Random Processes
Linear Algebra
Real Analysis
Abstract Algebra
Mathematical Logic