Milo Knowles

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github.com/milokhl

EXPERIENCE

Kespry Inc., Menlo Park CA — *Software Engineering Intern*

May 2017 - August 2017

Built a web application in Node.js that allows users to annotate training data for image classification models, analyze and debug the output of models, and augment the training set of a model using its own output. Trained a convolutional neural network to estimate the size of hail damage on rooftops for insurance customers.

Robust Robotics Lab, MIT CSAIL — *Research Assistant*

August 2016 - Present

Tested and analyzed the performance of Visual Inertial Odometry packages in ROS. Currently working on a smoothing-based state estimator.

EDUCATION

Massachusetts Institute of Technology

Computer Science (6-3) and Aeronautical Engineering (16ENG)

August 2015 - June 2019

GPA: 4.6 / 5

PROJECTS

MIT Mobile Autonomous Systems Lab 2017 — *1st Place*

Designed, built, and programmed an autonomous robot to navigate through an unknown environment, collect, sort, and stack blocks. Used ROS and OpenCV with nodes in Python and C++.

Algorithmic Trading

Trained an agent to buy and sell cryptocurrencies through reinforcement learning with a deep Q-network. Also implemented stock trading models based on Kalman filtering and news sentiment analysis.

HACKMIT 2016 - *Top 10 Team*

Built a multiplayer iOS virtual reality game that is controlled by pedalling and steering a stationary bike in real time.

MIT Pokerbots 2016 - *1st Place Newbie Tournament*

SKILLS

Languages: Python, C++, MATLAB, Javascript, HTML, CSS, R

Robotics: ROS, OpenCV

Machine Learning: PyTorch Tensorflow, Keras

RELEVANT CLASSES

Current
-Underactuated Robotics
-Robotics Science and Systems
-Machine Learning and Data Science in Politics
-Computer System Design

Past
-Advances in Computer Vision
-Principles of Autonomy and Decision Making
-Applied Machine Learning
-Intermediate Algorithms
-Introduction to Algorithms
-Computation Structures
-Signals and Systems
-Materials and Structures
-Fluids
-Thermodynamics
-Introduction to Astronomy
-Physics I & II
-Calculus I & II
-Differential Equations

LANGUAGES

Mandarin
English