

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 learning-based loop closure methods for a state estimator.

EDUCATION

Massachusetts Institute of Technology

Computer Science and Aeronautical Engineering

August 2015 - June 2019

GPA: 4.5 / 5

Bellarmino College Preparatory

August 2011 - June 2015

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, and sort blocks using ROS, Python, OpenCV, and C++.

Trading with Deep Q-Learning

Trained an agent to buy and sell cryptocurrencies through reinforcement learning with a deep Q-network.

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: C++, Python, Javascript, MATLAB, Swift, HTML, CSS

Robotics: ROS, OpenCV

Machine Learning:
Tensorflow, Keras

RELEVANT CLASSES

Current

- Computation Structures
- Advances in Computer Vision
- Principles of Autonomy and Decision Making

Past

- Applied Machine Learning
- Intermediate Algorithms
- Introduction to Algorithms
- Signals and Systems
- Materials and Structures
- Fluids
- Thermodynamics
- Introduction to Astronomy
- Introduction to Comp. Thinking and Data Science
- Physics I & II
- Calculus
- Differential Equations

LANGUAGES

Mandarin
English