Linyi Jin

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Education

University of Michigan — **Michigan, USA**
M.S. in Robotics. — *2019–2021(expected)*

University of Michigan — **Michigan, USA**
B.S.E. in Computer Science. GPA: 3.89/4.00 — *2017–2019*

Shanghai Jiao Tong University — **Shanghai, China**
B.S.E. in Mechanical Engineering. — *2015–2019*

Publication

Andrew Price*, **Linyi Jin***, **Dmitry Berenson**
Inferring Occluded Geometry Improves Performance When Retrieving an Object from Dense Clutter
International Symposium on Robotics Research (ISRR), 2019

- Augmented a manipulation planner for cluttered environments with a state-of-the-art RGB-D segmentation and constructed a 3D reconstruction perception pipeline to reduce the amount of occluded space to explore.
- Project Page: https://jinlinyi.github.io/mps.html

Work Experience

YITU Technology — **Shanghai, China**
Research Intern in Computer Vision — *2019.5-2019.8*

- Implemented novel algorithms for image classification systems. Increased final accuracy on large-scale datasets.

University of Michigan — **Ann Arbor, MI**
Instructional Aide for EECS 442 Computer Vision — *2019.1–2019.4*

- Re-designed all the assignments in Python and OpenCV. Held office hours, taught recitation classes every week.
- Course website: https://web.eecs.umich.edu/∼ fouhey/teaching/EECS442_W19/

Research Experience

Fouhey AI Lab, University of Michigan — **Ann Arbor, MI**
Directed study, Advisor: Prof. David Fouhey. — *2019.5–present*

- Working on developing novel algorithms to reconstruct 3D scenes from RGB images.

Autonomous Robotic Manipulation Lab (ARM Lab), University of Michigan — **Ann Arbor, MI**
Independent researcher, Advisor: Prof. Dmitry Berenson, Sponsor: Toyota Research Institute. — *2018.4–2019.4*

- Worked on the MPS project which is published to ISRR 2019.

Michigan Vision & Learning Lab (UMich-vl), University of Michigan — **Ann Arbor, MI**
Undergraduate research assistant, Advisor: Prof. Jia Deng. — *2018.5–2018.8*

- Worked on DARPA's Active Interpretation of Disparate Alternatives (AIDA) Challenge. Matched images with corresponding texts to build a knowledge graph.

Selected Projects

Convision: Bring Vision to the Blind through Conversation — **Ann Arbor, MI**
Capstone Project, Prof. Json Mars, University of Michigan — *2019.1–2019.4*

- Developed a smart conversation AI implemented on the Clinc platform. This tool will interact with users and help them understand the content of the image input.

Single-view Surface Normal Prediction — **Ann Arbor, MI**
EECS 442 Computer Vision, Prof. Jia Deng, University of Michigan — *2018.3–2018.4*

- Developed a machine learning model using a Stacked Hourglass Network and proposed a novel loss function to predict the surface normal from a single image. Reached 0.356 MEA (mean angle error) accuracy and breaks the record from previous years.

Skills

- **Skills:** Python, Matlab, C++/C, Java; LaTeX, HTML/CSS; Pytorch, Tensorflow; Arduino, ROS, RViz.