Cheng Chi

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PhD in Computer Science

Education

Columbia University - Jan 2021 - Current
Ph.D. in Computer Science
The Columbia Artificial Intelligence and Robotics Lab, Shuran Song
- Robotic manipulation and perception

University of Michigan - Jan 2016 - Dec 2019
Bachelors of Science in Computer Science
Autonomous Robotic Manipulation Lab, Dmitry Berenson
Accumulative GPA: 3.88/4.0

Publications

GarmentNets: Category Level Pose Estimation for Garments via Canonical Space Shape Completion
2021 The International Conference on Computer Vision (ICCV)
Cheng Chi, Shuran Song

Occlusion-robust Deformable Object Tracking without Physics Simulation
2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
Cheng Chi, Dmitry Berenson

Industry Experience

Nuro Inc - Jan 2020 - Jan 2021
Software Engineer, Autonomy @ Mapping and Localization Team
- Developed mapping and localization system for Nuro's autonomous delivery vehicles.

Apple Inc - May 2019 - Aug 2019
Engineering Intern @ Camera Architecture Team
- Developed software for simulating future camera systems

Uber Technologies - May 2018 - Jul 2018
Software Engineering Intern @ Maps Imagery Research Team
- Developed an unsupervised learning algorithm to cluster and filter GPS trails. Reduces memory consumption in 3D reconstruction pipeline by up to 80%, in production now
- Researched improving image-based SLAM with semantic segmentation

GeoDigital Autonomous Driving - May 2017 - Aug 2017
Software Engineering Intern
- Production level high performance C++/Python hybrid programming
- Point cloud road plane segmentation with C++ acceleration
- Created a python plug-in for QGIS performing semi-automatic road lane delineation using LiDAR data

Selected Projects

SpaceX Hyperloop Pod Competition - Mar 2016 - Mar 2017
Designer/Animator
- Designed full car warp for our Hyperloop Pod
- Created 3D animation videos and photorealistic renders for promotional use