Chaitanya Mitash

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EDUCATION

Rutgers, The State University of New Jersey **September 2015 - Present**
Ph.D Student, Computer Science
Advisors: Prof. Abdeslam Boularias, Prof. Kostas Bekris

Birla Institute of Technology, Mesra, India **June 2008 - May 2012**
Bachelor of Engineering, Computer Science

PUBLICATIONS

C Mitash, KE Bekris, and A Boularias, "A Self-Supervised Learning System For Object Detection Using Physics Simulation And Multi-View Pose Estimation", In IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Vancouver, Canada, September 2017.

C Mitash, A Boularias and KE Bekris, "Improving 6D Pose Estimation Of Objects In Clutter Via Physics-Aware Monte Carlo Tree Search", In IEEE International Conference on Robotics and Automation (ICRA), Brisbane, Australia, May 2018.

C Mitash, A Boularias and KE Bekris, "Robust Object Pose Estimation with Stochastic Congruent Sets", In British Machine Vision Conference (BMVC), Newcastle, England, UK, September 2018.

JP Mercier, **C Mitash**, P Giguere, A Boularias, "Learning Object Localization and 6D Pose Estimation from Simulation and Weakly Labeled Real Images", In Submission.

R Shome, W Tang, C Song, **C Mitash**, C Kourtev, J Yu, A Boularias and KE Bekris, "Towards Robust Product Packing with a Minimalistic End-Effector", In Submission.

EXPERIENCE

Research Intern, **June 2018 - August 2018,**
Microsoft Hololens, Seattle, WA
- Studied and developed solutions for domain adaptation related challenges in scene understanding for mixed reality applications.

Graduate Research Assistant, **January 2018 - Present,**
Rutgers University
JD-X (JD.com) Silicon Valley Research Center.
- Designed and implemented a perception pipeline for robotic bin picking and packing in cluttered scenarios.

Graduate Teaching Assistant, **September 2015 - December 2017**
Rutgers University
Courses:
- Introduction to Artificial Intelligence (Fall '17, Spring '17, Fall '16).
- Computational Foundations of Robotics (Spring '17).

- Systems Programming (Spring '16).
- Operating System Design (Fall '15).

Senior Software Engineer, **April 2014 - July 2015**
Modem Protocol Team
Samsung R&D Institute, Bangalore, India
Samsung Research, Suwon, South Korea

- Developed and optimized components of a new real-time operating system over an LTE modem chipset.
- Developed a simulator for this operating system to perform protocol testing.
- Developed tools to identify memory crash dumps and suggest fixes and optimizations.

R&D Engineer, **August 2012 - March 2014**
Ethernet Protocol Group,
Tejas Networks, Bangalore, India

- Designed and implemented the link aggregation group protocol over a packet switching platform.
- Debugged and solved issues across several software components of the Ethernet switch such as MPLS-TP and IGMP snooping.

Summer Intern, **May 2011 - July 2011**
Texas Instruments, Bangalore, India

- Performed IPv6 conformance testing for TI IP network camera.

RELEVANT SKILLS
C++, Python, Point Cloud Library, PyTorch, Matlab, ROS, OpenCV.

GRADUATE COURSES
Computer Vision, Computational Geometry, Pattern Recognition, Robot Learning, Robot Manipulation, Advanced Data Structures(Algorithm I), Streaming algorithms (Algorithm II), Introduction to Artificial Intelligence.

PARTICIPATION AND SERVICES
Workshop presentations:

- Poster presented at *4th International Workshop on Recovering 6D Object Pose*, ECCV, Munich, September, 2018.
- Poster presented at *Northeast Robotics Colloquium (NERC),* Northeastern University, October, 2017.
- Paper presented at *Warehouse Picking Automation Workshop*, Singapore, ICRA, May, 2017.

Services:

- Reviewed papers for *IEEE International Conference on Robotics and Automation (ICRA)*, 2018/2019 and *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)* 2017/2018, *IEEE Robotics and Automation Letters (RA-L).*

Participation:

- Participated in the *Amazon Picking Challenge, 2016* as a part of the Rutgers team. My contribution was in developing software for object pose estimation and shelf calibration.
- Qualified as Asia Finalists in the in the *ACM-International Collegiate Programming Contest (ICPC), 2010.* Final competition ranking was 37.