Yik Lung Pang

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Education

- **Queen Mary, University of London** — London, UK
  PhD Computer Science (Supervisors: Dr. Changjae Oh, Prof. Andrea Cavallaro) — *Apr 2020 - Mar 2025*
  Topics: Human-to-robot object handover, hand-object shape reconstruction
- **Queen Mary, University of London** — London, UK
  MSc Artificial Intelligence (Supervisor: Dr. Lorenzo Jamone) — *Sep 2018 - Sep 2019*
  Final Project: Detection of Objects and Tools Affordances through RGB-D Sensing and Robot Exploration
- **Imperial College London** — London, UK
  BSc Physics — *Sep 2012 - Jun 2015*

Experience

- **Queen Mary, University of London** — London, UK
  Research Assistant — *Apr 2025 - Present*
  - Research in VLM based referring expression segmentation
- **Idiap Research Institute** — Martigny, Switzerland
  Research Intern — *Jun 2023 - Dec 2023*
  - Developed method for reconstruction of hand and object shape represented as signed distance field (SDF) from sparse multi-view RGB images of humans holding everyday objects. Integrated our reconstruction method into a robot control pipeline in ROS for real-time image-guided human-to-robot handovers for household objects (including transparent objects).
- **Queen Mary, University of London** — London, UK
  Research Assistant — *Jan 2020 - Apr 2020*
  - Built tool for visualising estimated object centroid trajectories in 3D using Kalman filter with RViz and ROS. Developed UR5 grasping simulation environment in Gazebo.
- **Gentrack** — London, UK
  Analyst Programmer — *Jan 2016 - Sep 2018*
  - Part of an agile development team that analyses market changes and develops billing and customer care software for electricity and gas suppliers. Participated in solution design, implementation, unit testing, manual testing and documentation. Carried out data migration tasks in Oracle SQL and MS SQL and trained new users on-site during implementation projects.

Skills

- **Programming:** Python, C++
- **Libraries:** PyTorch, OpenCV, PyBullet, ROS, MoveIt!, Gazebo, Point Cloud Library, Open3D, Trimesh
- **Languages:** English, Chinese

Publications

- Zhu, C., Wang, H., **Pang, Y.L.** and Oh, C., "LaVA-Man: Learning Visual Action Representations for Robot Manipulation.", Conference on Robot Learning (CoRL), 2025
- Wu, Y., **Pang, Y.L.**, Cavallaro, A. and Oh, C., "Learning human-to-robot handovers through 3D scene reconstruction.", IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), 2025 [Webpage]
- **Pang, Y.L.**, Xompero, A., Oh, C. and Cavallaro, A., "Stereo hand-object reconstruction for human-to-robot handover", IEEE Robotics and Automation Letters (RA-L), 2025 [Webpage]
- Tian, L., Sorrenti, A., **Pang, Y.L.**, Bellitto, G., Palazzo, S., Spampinato, C. and Oh, C., "Incremental Object 6D Pose Estimation", International Conference on Pattern Recognition (ICPR), 2024 [Webpage]
- **Pang, Y.L.**, Oh, C. and Cavallaro, A., "Sparse multi-view hand-object reconstruction for unseen environments", IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshop (CVPRW), 2024
- Xompero, A., **Pang, Y.L.**, Patten, T., Prabhakar, A., Calli, B. and Cavallaro, A., "Audio-Visual Object Classification for Human-Robot Collaboration", IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2022 [Webpage]
- **Pang, Y.L.**, Xompero, A., Oh, C. and Cavallaro, A., "Towards safe human-to-robot handovers of unknown containers", IEEE International Conference on Robot & Human Interactive Communication (RO-MAN), 2021 [Webpage]
- Oh, C., **Pang, Y.L.** and Cavallaro, A., "OHPL: One-shot Hand-eye Policy Learner", IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2021 [Webpage]

Awards

- Placed 1st in London Robotics & AI Summer Mini-School Hackathon 2023
- Placed 2nd in QMUL-BUPT Design & Build Winter Hack 2019

Teaching

- Demonstrator for ECS709 - Introduction to Computer Vision (2021/2022)