Anson **Wong**

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Education

The University Of Southern California
LA, U.S.A

M.S. in Computer Science — *Aug. 2018 - Present*

- Major CGPA: N/A

The University Of Hong Kong
Hong Kong

B.S. in Computer Science — *Sep. 2013 - Jun. 2018*

- Major CGPA: 3.5

The University of North Carolina at Chapel Hill
NC, U.S.A

one-year exchange student — *Aug. 2016 - May. 2017*

- Major CGPA: 3.95

Experience

Robotic Embedded Systems Laboratory - USC Robotics Research Lab
U.S.A

Research Assistant — *Oct. 2018 - Present*

- Implements reinforcement learning algorithm in tensorflow.

Undergraduate Research at The University Of North Carolina at Chapel Hill (Prof. Dinesh Manocha)
NC, U.S.A

Undergraduate Research Assistant, working on crowd simulation and robot navigation — *Sep. 2016 - May. 2017*

- Mixed real-world unnanotated videos with synthetic agents in a novel way using simulation tool and unreal engine 4. Modified simulation environment, automated agent models and poses generation procedures.
- Resulted in an academic paper.
- Implemented various obstacle avoidance policies on real robot and carried out experiments for comparison. Perform coordinate mapping on existing first-person view video datasets which can serve as training dataset for obstacle avoidance (e.g. expert demonstration in inverse reinforcement learning).

Undergraduate Research at The University Of Hong Kong (Dr. Kenneth Wong)
Hong Kong

Research on deep learning — *Mar. 2016 - May. 2016*

- Wrote codes on visualizing learning performance of deep learning models and dynamic generation of deep learning models with high-level parameters.

Undergraduate Research at The University Of North Carolina at Chapel Hill (Prof. Dinesh Manocha)
NC, U.S.A

Research for generation of synthetic crowd dataset for machine learning — *June. 2015 - Sep. 2015*

- Generated fully synthetic crowd dataset for crowd understanding using simulation tool and unreal engine 4.
- Resulted in an academic paper.

Fundroots Creative Software Ltd.
Hong Kong

Software Engineer (Mobile Application, Trading platform) — *Aug. 2015 - Aug.2018*

- Worked on backend of a trading system and an Android mobile application for frontend.

DARPA Robotic Challenge
LA, U S.A

Student member for HKU Team — *Jun. 2015*

- Involved in robot operation. One of the field team member.

HKU Advanced Robotic Laboratory
Hong Kong

Student member — *Jan. 2015 - Jun. 2015*

- Worked on robot arm manipulation. Created a demo in which a humanoid robot performed drawing on a board.

Apptask LTD. *Hong Kong*

Mobile Application Developer *Jan. 2015 - Jun. 2015*

- Reviewed codes and implemented additional features for a mobile application which connects to electronic sofas. Stabilized remote connection via bluetooth.

Extracurricular Activity

AIESEC-LC-HKU (Global Youth-run organization) *Hong Kong*

Information Management Team Member *Sep. 2014 - Jun. 2015*

- Responsible for information management of the organization. Develop a mobile application for event management and registration.

Honors & Awards

2016 **Rosita King Ho Scholarship**, (Support oversea exchange) *Hong Kong*

2015 **The Arthur and Louise May Memorial Fund Scholarship**, (Support oversea research) *Hong Kong*

2013 **Sir Edward Youde Memorial Prizes**, (Support academic outstanding students) *Hong Kong*

2012 **Silver Award**, Asia International Mathematical Olympiad *Hong Kong*

Presentation

11th Annual Undergraduate Research Symposium *NC, U.S.A*

Presenting "Synthetic Data for Crowd and Human Understanding" *Apr. 2017*

- Introduced the use of synthetic data in crowd understanding, talked about the advantages over conventional human labelling and how it improved pedestrian-detection accuracy.

Publications

MixedPeds: Pedestrian Detection in Unannotated Videos using Synthetically Generated Human-agents for Training *Paper*

Coauthor *2017*

- Accepted in AAAI 2018
- URL: `https://arxiv.org/abs/1707.09100`

LCrowdV: Generating Labeled Videos for Simulation-based Crowd Behavior *Paper*

Coauthor *2016*

- Accepted in ECCVW 2016
- URL: `http://gamma.cs.unc.edu/LCrowdV/`

Projects

Training Collision Avoidance Policy in Simulation through Deep Reinforcement Learning *Hong Kong*

HKU CS Final year project *May. 2017*

- Using Unreal Engine 4 to train a collision avoidance policy, which is applicable on a real robot, using state-of-the-art deep reinforcement learning algorithm and several machine learning frameworks.
- url: https://ahtsan.github.io/rlbot/index.html

Personal

Github

https://github.com/ahtsan

Personal website

https://ahtsan.github.io/