



YUANHAI TAN

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Education

Master of Science in Computing (**VC&R**), Imperial College London

November 2021

Overall GPA 4.00

Honor:

Distinction classification in Visual Computing and Robotics

Bachelor of Science in Computer Science, Lehigh University

May 2020

Overall GPA 3.57

Major GPA 3.75

Honors:

Dean's List

Spring 2020

Dean's List

Spring 2018

Dean's List

Spring 2017

Related Experience

Master Thesis, [AIRL](#), Imperial College London

Spring 2021-Autumn 2021

Supervisor: [Antoine Cully](#)

- Master thesis: "Collaborative Reinforcement Learning for rapid adaptation in robotics"
- Designed and implemented a further development of the well-known Intelligent Trial and Error Algorithm using collaborative filtering.
- Developed a state-of-the-art collaborative method for robust inter-robot collaboration

NSF Project Research Assistant, Lehigh University

Spring 2020

Supervisor: [Liang Cheng](#)

- NSF Awarded Research: "CPS: Breakthrough: Analysis, Identification and Mitigation of Delay Performance Bottlenecks of Network Infrastructure in Cyber-Physical Systems"
- Built the simulation infrastructure using OMNeT++ and INET framework
- Created simulations such as AVB networks and TANDEM networks

Autonomous RC Car, Lehigh University

2019-Spring 2020

Supervisor: [Mooi Choo Chuah](#), [Corey Montella](#)

- Utilized visual based localization and navigation
- Enabled collaboration between multiple autonomous cars
- Constructed both software and hardware platform

Project DōKō, Senior Design Project, Lehigh University

2019

Advisor: [Mooi Choo Chuah](#) Sponsor: [OhmniLabs](#)

- Created general usage robot based on a novice telepresence platform
- Constructed robust navigation system in complex office environment
- Powered by neural-network, ROS, and other state-of-the-art systems

Game Developer, Umineko Distribution

2017-Summer 2020

- Unity 3D game with cross-platform support
- Won “the Most Fun Award” in LUApps, a college-wide software competition
- Hosted on [google store](#) and downloaded by thousands across the globe

Software and Automation Engineer, Lehigh Hyperloop, Lehigh University

2017-2018

- Designed and implemented software and sensors arrays used on hyperloop pods
- One of the few teams participated in the final competition hosted by SpaceX
- Maintained the team’s [website](#)

Teaching Experience

Lehigh University, Bethlehem, PA

Spring 2018-Spring 2020

Teaching Assistant, Department of Computer Science and Engineering

- Mentored student groups for semester long projects
- Held weekly progress report meetings and set goals for teams
- Office hours, assignment gradings, and various class related tasks

Skills

Industrial Related

- In-depth knowledge on DDS and ROS-like middleware
- Large-scale, high-performance, reliability-demanding communication system experience
- AutoSar (Adaptive Platform) experience

Programming Related

- Use C++, Python daily
- ROS 1/2
- PyTorch, TensorFlow for ML, DL, and DRL

Communication

- Native-like English, Native Chinese, Elementary Japanese
- Open and inclusive personality

Leadership

- Team captain for VEX team 8176(A/B/C) for 2 years
- Founded Umineko Distribution and participated in multiple software competitions