

Ni-Ching 'Monica' Lin

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Strong leader who consistently takes on the most challenging projects, and has extensive experience in the field of robotics. The recent achievements include 4 publications, 2 competition experiments.

EDUCATION

M.S. Institute of Electrical and Control Engineering National Chiao Tung University Sep,2016 – Jan,2019 (NCTU), Taiwan

B.S. Department of Electrical Engineering Tamkang University (TKU), Taiwan. GPA: Sep,2012 – Jan,2016 3.89/4.00, Ranking: 3/67.

RELEVANT EXPERIENCES

Mechatronics Engineer Internship, XYZ Robotics Inc., Boston, USA Apr,2019 – Jul,2019

IP Development

- Upgrade/Built Production EOAT with Magnetic Breakaway and Z Adaptive
- Developed vacuum gripper handle high mass skus in loose poly-bags
- Designed/Built System Electrical Enclosure

WAM-V Integration Lead, Maritime RobotX Competition Oct,2017 – Dec,2018

Visiting Student, Massachusetts Institute of Technology, Boston, USA Feb,2018 – Apr,2018

System Designed (NCTU WAM-V Autonomous System)

- Designed/Built Power, Internet, and Motor Systems
- Conducted investigations and resolved in-field issues

Team Lead, Independent Study, NCTU, Taiwan Sep,2018 – Feb,2019

System Design (EOAT for Amazon picking challenge)

- Designed/Built a parallel and vacuum gripper that can handle high mass warehouse items
- Designed/Built an electronic board for the gripper

Visiting Student, University of Massachusetts at Boston, USA Feb,2016 – Jun,2016

Virtual Environment Design

- Developed a 3D model for virtual environment testing in Unity 3D

PUBLICATIONS

Journal Paper:

[J1] H. Huang, **N.-C. Lin**, L. Barrett, D. Springer, H.-C. Wang, M. Pomplun, & L.-F. Yu (2017). Automatic Optimization of Wayfinding Design. *IEEE transactions on visualization and computer graphics (TVCG)*.

Conference Presentations:

[C1] **N.-C. Lin**, Y.-C. Hsiao, Y.-W. Huang, C.-T. Hung, T.-K. Chuang, P.-W. Chen, J.-T. Huang, C.-C. Hsu, A. Censi, M. Benjamin, C.-F. Chen, and H.-C. Wang "Duckiepond: A Reproducible, Flexible, and ML-Compatible Education and Research Platform for a Fleet of Autonomous Maritime Vehicles," Accepted by IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2019)

[C2] H. Huang, **N.-C. Lin**, L. Barrett, D. Springer, H.-C. Wang, M. Pomplun, & L. F. Yu. Analyzing visual attention via virtual environments. Virtual Reality meets Physical Reality: Modelling and Simulating Virtual Humans and Environments. *In SIGGRAPH ASIA 2016*.

[C3] T.-K. Chuang*, **N.-C. Lin***, J.-S. Chen, C.-H. Hung, Y.-W. Huang, C.-C. Teng, H. Huang, L.-F. Yu, L. Giarré, & H.-C. Wang. Deep Trail Following Robotic Guide Dog in Pedestrian Environments for People Who Are Blind and Visually Impaired - Learning from Virtual and Real Worlds. *IEEE International Conference on Robotics and Automation* (to appear in ICRA 2018). *T.-K. Chuang and N.-C. Lin contributed equally to this work.

HONOR & AWARDS

5th Place and Best Single Day Performance, 2018 RobotX Challenge. (\$4,000 and \$2,000 USD) Dec,2018

Pilot Overseas Internships, Ministry of Education, Taiwan. (\$10,000 USD). Jun,2017

First Place Award, HIWIN Intelligence Robot Implementations Contest, Taiwan (\$13,000 USD) Jul,2015

Honorable Mention, International Robot Hands-on Competition & Symposium, Taiwan 2014

Honorable Mention, International Robot Hands-on Competition & Symposium, Taiwan 2015

Da Yu Award, College of Engineering Tamkang University (Top 3%) Mar,2015

TECHNICAL SKILLS

CAD Software: SolidWorks, CREO

Embedded Systems: Raspberry Pi, Arduino

Programming Language: Python, C/C++, C#, HTML

Robotic System: ROS