Yayun Du

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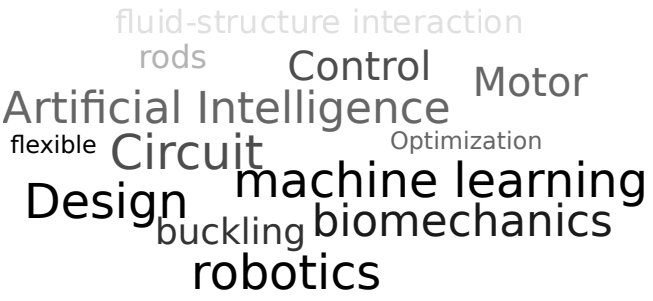

Education

University of California, Los Angeles, CA
Ph.D. (Mechanical Engineering) — Sep 16 - Present
Major: System and Control
Minor: Solid and Mechanics

Harbin Institute of Technology, Harbin, Heilongjiang, China — Ranking: 1/144
B.S.E. (Automotive Engineering) — Sep 12 - July 16

Research experience

Structure-Computer Interaction Lab, UCLA, Los Angeles, CA — April 18 - present
Graduate Research Assistant — Advisor: Professor M. Khalid Jawed
Research area: robotics and control

New Energy Vehicle Research Institute, Harbin Institute of Tech, Harbin, China — Jul 14 - Aug 16
Assistant in Research — Advisor: Professor Dafang Wang
Research area: distributed vehicle system control, new energy vehicle

Advising and mentoring experience

Undergraduate Student Research Program (SRP) 199 : Wenjie Mo, Da Chen, Yu Zhou, Guofeng Zhang, Darren Tsang, "Algorithms for autonomous weed control" , 2020

Undergraduate Student Research Program (SRP) 199 : Andrew Miller, "Bacteria-inspired flagellated robot turn by buckling soft tails", 2019-2020

Undergraduate Student Research Program (SRP) 199 : Keerthi Pradaa Balajee, "Bacteria-inspired soft robot capable of traveling through granular media", 2019

Undergraduate Student Research Program (SRP) 199 : Taiki Nagata, "Collaborative robotic drawing simulation in Vrep with constant force", 2019

Undergraduate Student Research Program (SRP) 99 : Karunesh Schanandani, Jacqueline Lam,"2D movement control of soft robots in low Reynolds number of fluid", 2019

Undergraduate Summer Intern : Zihang Zhao, Visiting Undergraduate Student, "Build a compact agriculture robot for weed control", 2019

Teaching and Leadership Experience

Department of Electrical Engineering, UCLA, Los Angeles, CA — Sep 17 - Sep 20
Teaching Associate for *ECE 205A Matrix Analysis for Scientists and Engineers* (Graduate)
Student evaluation: **8.0/9.0**

Department of Mechanical Engineering, UCLA, Los Angeles, CA — Sep 17 - Sep 19
Teaching Assistant for *M20 Introduction to Computer Programming with MATLAB* (Undergraduate)
Student evaluation: **7.7/9.0**

Department of Physics & Astronomy, UCLA, Los Angeles, CA — Mar 18 - Jun 18
Teaching Assistant for *Physics 5C Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics Physics 1C Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity* (Undergraduate)
Student evaluation: **8.0/9.0**

Department of Psychology, UCLA, Los Angeles, CA — Sep 17 - Sep 19
Teaching Assistant for *Psychology 120B Sensation & Perception* (Undergraduate)
Student evaluation: **8.0/9.0**

Yuan • Meng Tibet, Tibet, China — Jun 13 - Sep 13
Team Creator and Leader of the first volunteer team at HIT to teach in Tibet

Technical Experience

FAW Jiefang Automotive Co., Ltd., Changchun, China — Jan 16 - Mar 16
Engineering Assistant Intern

Zhengzhou Nissan Motor Company, Zhengzhou, China — Jan 14 - Mar 14
Engineering Assistant Intern

Conference Proceedings and Presentations

Peer-Reviewed

($^{\#}$ indicates students supervised or mentored by Yayun Du)

C1. **Y., Du**, Deng, Z. $^{\#}$, Fang, Z.$^{\#}$, Wang, Y.$^{\#}$, Nagata, T.$^{\#}$, Bansal, K., Quadir, M., Jawed, M. K.,"Vision and force based autonomous coating with rollers", International Conference on Intelligent Robots and Systems, 2020. (*Accepted*)

C2. Qin, L., Huang W., **Y., Du**, Zheng, L., "Genetic algorithm-based inverse design of elastic gridshells", Structural and Multidisciplinary Optimization, 2020. (*Accepted*)

C3. Wang, D., Zhou, C., Zou, M., Liao, J., **Y., Du**, "Study on Inspection of the Initial Rotor Position of BLDC Based on High-frequency Signal Injection", IEEE Transportation Electrification Conference and Expo Asia-Pacific, 2014. (*Accepted*)

C4. **Y., Du**, Mallajosyula, B.$^{\#}$, Sun D.$^{\#}$, Chen J.$^{\#}$, Zhao, Z.$^{\#}$, Wang, Y.$^{\#}$, Rahman M., Quadir, M., Jawed, M. K., "Compact mobile robot for precision weed management in row crops", Robotic and Autonomous Systems, 2020. (*Submitted*)

Not Peer-Reviewed

C1. **Y., Du**, Lam, J.$^{\#}$, Sachanandani K.$^{\#}$, Huang, W., Jawed, M. K.,"Locomotion of Soft Robots with Flexible Flagella in Granular Medium", American Physical Society March Meeting, Boston MA, March 4-8, 2019.

C2. Qin L., **Y., Du**, Huang, W., Jawed, M. K., "Numerical Simulations for Physics-based Training of Robots for Manipulation of Flexible Rods", American Physical Society March Meeting, Boston MA, March 4-8, 2019.

C3. Sharifazadeh H., **Y., Du**, Beyzavi, A., Jawed, M. K., "Entanglement of Elastic Fibers in low Reynolds Fluid Flow", American Physical Society March Meeting, Boston MA, March 4-8, 2019.

Professional Association

American Physical Society & IEEE Membership

Selected Honors and Awards

Graduate

2016	**Best Passage Award** from UCLA Graduate Division for sharing the story "How I get to UCLA"

Undergraduate

2012-2016	**National Scholarship** from Ministry of Education of the People's Republic of China with first GPA ranking for four years in Department of Automotive Engineering
2015	**Top Ten Students** of Harbin Institute of Technology, Weihai for combined top 1% GPA, excellent publications and outstanding leadership evaluated by classmates and staff in the department. I was the only junior gaining this honor while others were seniors
2015	**Honorable Mention** from COMAP for Mathematical Contest in Modeling (MCM)
2015	**Outstanding Leader Award** from Harbin Institute of Technology for academic excellence and fantastic student club activity organization
2014	**Best-organized Volunteer Team Leader** from Harbin Institute of Technology for establishing the first volunteer team of college students to teach in Tibet and building long-term cooperation with the local government
2013	**First Prize** from Heilongjiang Provincial Education Department in Mathematics Competition for College Students; 8% of students were awarded in 2013
2013	**First Prize** from College Foreign Language Teaching Committee and College Foreign Language Teaching Research Association in National English Competition for College Students; 6% of students were awarded in 2013
2013	**Most Creative Award** from Department of Automotive Engineering for the lowest cost and most efficient pressure oil pump design; 1 out of 10 teams was awarded

Technical Skills

Programming: MATLAB, Python, C/C++, ROS, HTML, JavaScript

Modeling & Designing: CATIA, Solidworks, AutoCAD, Mathematica, COMSOL, Simulink/Carsim, Davinci Resolve

Languages: English, Chinese, Korean

References

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