

Jiaming Fu

Assistant Professor, Mechanical Engineering, University of West Florida
11000 University Parkway, Building 4, Room 138, Pensacola, FL 32514

✉ jfu@uwf.edu | ☎ +1-850-474-2514 | [Google Scholar](#)

Education

Purdue University, West Lafayette, IN 2024
Ph. D. in Technology (Robotics Track)

Columbia University, New York, NY 2020
M. S. in Mechanical Engineering

Florida Institute of Technology, Melbourne, FL 2017
B. S. in Mechanical Engineering

Research Interests

Robotics, Collaborative Robotics, Soft Robotics, Compliant Mechanisms, Variable Stiffness Mechanisms, Grasping and Manipulation, Control, Force Sensing, AI in Mechanical Design

Professional Experience

Assistant Professor, University of West Florida, Pensacola, FL Aug. 2024 - present
Research Assistant, Purdue University, West Lafayette, IN Aug. 2020 - May 2024
Entrepreneurial Lead, NSF I-Corps Program, West Lafayette, IN Feb. 2022 - July 2022

Teaching & Mentoring

- EML 4225 Dynamic Systems Fall 2024
- Enterprise project - BattleBots Fall 2024

Awards & Honors

ASME Top Senior Award, Florida Tech 2017
Phi Kappa Phi & Tau Beta Pi 2017
Dean's List, Florida Tech 2016 & 2017

Professional Activities

Chairing

- ASME IDETC-CIE MR-3 Session chair 2024

Ad Hoc Reviewer

- IEEE BioRob 2024
- IEEE ReMar 2024

- IEEE Transactions on Biomedical Engineering (Journal) 2024
- ASME Journal of Mechanisms and Robotics (Journal) 2023&2024
- IEEE Transactions on Circuits and Systems for Video Technology (Journal) 2023
- IEEE ICRA 2023
- ASME IDETC-CIE 2022&2023
- IEEE ICIRA 2022

Publications

Journal Papers

1. **Fu, J.**, Yu, Z., Guo, Q., Zheng, L., & Gan, D. (2024, First View). A variable stiffness robotic gripper based on parallel beam with vision-based force sensing for flexible grasping. *Robotica*.
2. **Fu, J.**, Yu, Z., Lin, H., Zheng, L., & Gan, D. (2023). A novel variable stiffness compliant robotic link based on discrete variable stiffness units for safe human–robot interaction. *ASME Journal of Mechanisms and Robotics*, 16(1).
3. Gan, D., **Fu, J.**, Lin, H., Yang, H., Rastgaar, M., Min, B.-C., & Voyles, R. M. (2022). Actuation-coordinated mobile parallel robots with Hybrid Mobile and manipulation functions. *ASME Journal of Mechanisms and Robotics*, 14(4).

Conference Papers

1. Alvi, M. H., **Fu, J.**, Newell, B., & Gan, D. (2024). A Variable Stiffness Soft Actuator for Hand Rehabilitation. *2024 6th International Conference on Reconfigurable Mechanisms and Robots (ReMAR)*, Chicago, IL, USA, 2024, pp. 587-594
2. Guo, Q., Yu, Z., **Fu, J.**, Lu, Y., Lu, Zweiri, Y., & Gan, D. (2024). **Force-EvT: A Closer Look at Robotic Gripper Force Measurement with Event-based Vision Transformer**. *2024 6th International Conference on Reconfigurable Mechanisms and Robots (ReMAR)*, Chicago, IL, USA, 2024, pp. 608-613
3. Yu, Z., **Fu, J.**, Yao, B., Chiu, G., Voyles, R. M., & Gan, D. (2024). Dynamic Modeling and Robust Force-Position Control of a Variable Stiffness Gripper. *2024 6th International Conference on Reconfigurable Mechanisms and Robots (ReMAR)*, Chicago, IL, USA, 2024, pp. 173-179
4. Guo, Q., **Fu, J.**, Lu, Y., & Gan, D. (2024). Diffusion attack: leveraging style diffusion for naturalistic image attacking. *2024 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, Orlando, FL, USA, 2024, pp. 975-976
5. **Fu, J.**, Guo, Q., Gan, D. (2023). Machine learning based deflection prediction and inverse design for discrete variable stiffness units. *Proceedings of the ASME 2023 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC-CIE)*. Volume 8: 47th Mechanisms and Robotics Conference (MR).
6. Yu, Z., **Fu, J.**, Yao, B., Voyles, R. M., Chiu, G., & Gan, D. (2023). Dynamic modeling and robust torque control of a discrete variable stiffness actuator. *Proceedings of the ASME 2023 International Design Engineering Technical Conferences and Computers*

and Information in Engineering Conference (IDETC-CIE). Volume 8: 47th Mechanisms and Robotics Conference (MR).

7. Lin, H., Luo, J., Huang X., Yang, H., **Fu, J.**, Voyles, R. M., & Gan, D. (2023). Design and system identification of an actuation-coordinated mobile parallel robot with hybrid mobile and manipulation motion. *Proceedings of the ASME 2023 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC-CIE). Volume 8: 47th Mechanisms and Robotics Conference (MR).*
8. **Fu, J.**, Lin, H., Xu, W., & Gan, D. (2022). A novel variable stiffness compliant robotic link based on discrete variable stiffness units for safe human-robot interaction. *Proceedings of the ASME 2022 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC-CIE). Volume 7: 46th Mechanisms and Robotics Conference (MR).*
9. **Fu, J.**, Lin, H., Prathyush, I. V., Huang, X., Zheng, L., & Gan, D. (2022). A novel discrete variable stiffness gripper based on the fin ray effect. *Intelligent Robotics and Applications (ICIRA)*, 791–802.
10. Xu, W., **Fu, J.**, & Gan, D. (2022). Design and modeling of a new variable stiffness robotic finger based on reconfigurable beam property change for flexible grasping. *Proceedings of the ASME 2022 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC-CIE). Volume 7: 46th Mechanisms and Robotics Conference (MR).*
11. **Fu, J.**, & Gan, D. (2021). A reconfigurable variable-stiffness parallel beam for compliant robotic mechanisms towards safe human interaction. *Proceedings of the ASME 2021 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC-CIE). Volume 8A: 45th Mechanisms and Robotics Conference (MR).*
12. **Fu, J.**, Zheng, L., Gan, D. (2021), Concept and modeling of a discrete variable stiffness actuator based on a reconfigurable parallel-beam flexure mechanism. *Volume 1: Proceedings of the 5th IEEE/IFTOMM International Conference on Reconfigurable Mechanisms and Robots (ReMAR).*
13. Gan, D., **Fu, J.**, Rastgaar, M., Min, B.-C., & Voyles, R. (2021). Actuation-coordinated mobile parallel robots with hybrid mobile and manipulation function. *Proceedings of the ASME 2021 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC-CIE). Volume 8B: 45th Mechanisms and Robotics Conference (MR).*
14. Xia, B., **Fu, J.**, Zhu, H., Song, Z., Jiang, Y., & Lipson, H. (2021). A legged soft robot platform for Dynamic Locomotion. *2021 IEEE International Conference on Robotics and Automation (ICRA).*

Patents

1. Gan, D., Alvi, M. H., & **Fu, J.** (2024). *Physical Therapy Tool for Hand Rehabilitation in Stroke Patients.* (US Patent 2024-GAN-70630) (Pending)

2. Gan, D., **Fu, J.**, & Xu, W. (2023). *A Novel Robotic Gripper with Adaptative Stiffness*. (US Patent 2022-GAN-69770) (Pending)