



## Jasmin E. Palmer

Ph.D. Student in Mechanical Engineering, admitted Autumn 2019

### Bio

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#### BIO

Jasmin earned a Bachelor of Science in Mechanical Engineering with a concentration in Controls, Instrumentation, and Robotics at the Massachusetts Institute of Technology (MIT) and a Master of Science in Mechanical Engineering at Stanford University. Jasmin is currently pursuing her Ph.D. in Mechanical Engineering at Stanford University and conducting research with faculty supervisor Professor Allison Okamura in the Collaborative Haptics in Robotics in Medicine (CHARM) Lab. Jasmin's Ph.D. research centers around human-computer interaction and haptics, the science of and relating to the sense of touch. Developing technology that provides beneficial haptic feedback to human operators requires a multi-pronged and interdisciplinary approach. Her work leverages concepts from psychology and neuroscience to understand human perception, experimental design, and statistical analysis, and also applies her engineering background in dynamic modeling of physical systems and mechatronic system development in order to develop novel designs for wearable devices. The goal of her thesis is to develop an adaptable simulation framework that provides realistic haptic feedback for humans to perform various dexterous manipulation tasks in dynamic virtual reality (VR) and mixed reality (MR) environments using wrist-worn tactile devices. Jasmin wants to become an inspiration for other women of color to pursue careers in STEM fields. Jasmin also enjoys composing music, playing the flute, and studying foreign languages.

#### HONORS AND AWARDS

- Black in Robotics Legacy Fellow, Black in Robotics (2024)
- National Science Foundation Graduate Research Fellow, National Science Foundation (2020)
- Enhancing Diversity in Graduate Education (EDGE) Doctoral Fellow, Stanford Vice Provost of Graduate Education (2019)
- PhD Engineering Fellow, GEM National Consortium (2019)

#### EDUCATION AND CERTIFICATIONS

- Master of Science, Stanford University , Mechanical Engineering (2021)
- Bachelor of Science, Massachusetts Institute of Technology , Mechanical Engineering (2019)

### Publications

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#### PUBLICATIONS

- **Haptic Feedback Relocation from the Fingertips to the Wrist for Two-Finger Manipulation in Virtual Reality**  
Palmer, J. E., Sarac, M., Garza, A. A., Okamura, A. M., IEEE  
IEEE.2022: 628-633
- **In vivo photoacoustic imaging of major blood vessels in the pancreas and liver during surgery.** *Journal of biomedical optics*  
Kempinski, K. M., Wiacek, A., Graham, M., González, E., Goodson, B., Allman, D., Palmer, J., Hou, H., Beck, S., He, J., Bell, M. A.  
2019; 24 (12): 1-12

- **In Vivo Demonstration of Photoacoustic-Guided Liver Surgery**

Kempski, K. M., Wiacek, A., Palmer, J., Graham, M., Gonzalez, E., Goodson, B., Allman, D., Hou, H., Beck, S., He, J., Bell, M., Oraevsky, A. A., Wang, et al  
SPIE-INT SOC OPTICAL ENGINEERING.2019