HIROSHI FURUYA

UCF Trustees Doctoral Fellow

hiroshi@hfuruya.com | US Citizen

RELEVANT EXPERIENCE

UCF Trustees Doctoral Fellow **August 2020 - Current**

University of Central Florida (Orlando, FL)

- Advisor: Prof Gregory Welch
- Primary research interests: XR intelligent systems HCI in safety critical human operations
- Primary domain interests: Human space exploration, aerospace, and defense

Senior Software Developer **October 2018 - July 2020**

MoBack, Inc., at Robotics at Google (Mountain View, CA)

- UI/UX and Software Engineering for mixed reality applications involving robotics and machine learning using Unity, object oriented programming in C# and Python, and UNIX shell
- Ownership of design, development, and operational integration support of client application features
- Usability analysis for performance improvement, incl. subjective and objective human measures
- Responsible TPM and vendor point of contact for all MoBack employees and contractors at Google

NASA Space Technology Research Fellow **August 2016 - July 2018**

Columbia University (New York, NY)

- Research topic: Collaborative Augmented Reality with Hands-Free Gesture Control for Remote Astronaut Training and Mentoring, advised by: Prof. Steven Feiner, Columbia University
- AR prototype development for International Space Station (ISS) stowage operations using Unity, C#
- HITL testing, HITL evaluation, and human research study design and execution with SME subjects
- Mentor and include NASA student interns in ongoing research projects

Arnold Engineering Development Center (AEDC) T&E Scholar **June 2014 - May 2016**

United States Air Force AEDC, White Oak Hypervelocity Wind Tunnel 9 (White Oak, MD)

- Designed and performed evaluations for global thermal measurement system sensors
- Presented to AIAA Student Region I Regional Conference 2016 and local hypersonics consortium

EDUCATION AND ACCOMPLISHMENTS

University of Central Florida August 2020 - Current
PhD. Computer Science GPA N/A
UCF Trustees Doctoral Fellow 2020 - Current

Columbia University May 2018
M.S. Computer Science GPA 3.6/4.0

University of Maryland May 2016
B.S. Aerospace Engineering with Honors GPA 3.8/4.0

Future Space Leaders Foundation Fellow 2018
NASA Space Technology Research Fellow August 2016 - July 2018
University of Maryland Banneker/Key Scholar August 2012 - May 2016

PERSONAL INTERESTS AND EXPERIENCES

Co-founded non-profit to solve technical problems for int'l non-profits, volunteer Sunday school teacher for children in the Diocese of San Jose and the Archdiocese of New York, STEM education programs for children, guest judge for NASA SUITS university challenge program in 2018.

PUBLICATIONS AND PRESENTATIONS

Furuya, H., Wang, L., Elvezio C., and Feiner, S. “A Comparative Ground Study of Prototype Augmented Reality Task Guidance for International Space Station Stowage Operations,” in Proc. 69th International Astronautical Congress, 2018, pp. 5785-5795.

Furuya, H., Wang, L., Elvezio, C., and Feiner, S. "Augmented reality task guidance for international space station stowage operations." Talk and demonstration at ACM SIGGRAPH 2018 Immersive Pavilion, Vancouver, BC, Canada, August 12\-16, 2018.
(Published as Furuya, H., Wang, L., Elvezio, C., and Feiner, S. "Augmented reality task guidance for international space station stowage operations." Proc. SIGGRAPH 2018 Virtual, Augmented, and Mixed Reality, Article 4, https://doi.org/10.1145/3226552.3226579)