

HIROSHI FURUYA

UCF Trustees Doctoral Fellow

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US Citizen | Orlando, FL

RELEVANT EXPERIENCE

UCF Trustees Doctoral Fellow

August 2020 - Current

University of Central Florida (Orlando, FL)

- Advisor: Prof Gregory Welch
- Research on virtual agents for pedestrian-autonomous vehicle interactions, AR for astronaut extravehicular activities, and other AR/VR for intelligent systems HCI in safety critical domains
- Lead interdisciplinary UCF student team of over 16 students for NASA SUITS challenge

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

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 3.9

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

Graduate research mentor for UCF undergraduates, 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, education programs for underserved children, food pantry volunteer in NYC

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.

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