HIROSHI FURUYA

hiroshi@hfuruya.com | US Citizen

RELEVANT EXPERIENCE

Senior Software Developer **October 2018 - Present**

MoBack, Inc., at Robotics at Google

- 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 development and support operational integration of critical user-facing subsystems
- Lead usability analysis to identify key areas for performance improvement, including subject workload assessments, operator interviews, and metrics analysis
- Responsible TPM and vendor point of contact for all MoBack employees at Google

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

Columbia University

- Research topic: Collaborative Augmented Reality with Hands-Free Gesture Control for Remote Astronaut Training and Mentoring, advised by: Prof. Steven Feiner, Columbia University
- Created AR application, StowageApp, targeting International Space Station (ISS) logistics stowage operations using Unity and Microsoft HoloLens
- Developed new stowage procedure description methodology to better utilize AR technology
- Wrote IRB applications and user study design for the evaluation of StowageApp
- Conducted over 40 hours of pilots in ISS full-scale mock-up at NASA Johnson Space Center
- Presented results at SIGGRAPH 2018 in Vancouver, Canada for demonstration and the 69th International Astronautical Congress in Bremen, Germany for oral presentation and technical publication
- Lead NASA student intern participation in the development and evaluation of StowageApp

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

United States Air Force Material Command AEDC, White Oak Hypervelocity Wind Tunnel 9 (T9)

- Designed and performed evaluations for global thermal measurement system sensors
- Presented results at AIAA Student Region I Regional Conference 2016 in Worcester, MA
- Gave 3 poster and 4 technical presentations to AEDC and hypersonics consortium audience
- Mentored two other interns in team projects

EDUCATION AND ACCOMPLISHMENTS

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

2018

H. Furuya, L. Wang, C. Elvezio, and S. Feiner, “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.
H. Furuya, L. Wang, C. Elvezio, and S. Feiner, “Augmented Reality Task Guidance for International Space Station Stowage Operations,” presented at SIGGRAPH 2018, Vancouver, British Columbia, August 12-16, 2018