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Hector Taylor - htaylor302@gmail.com

Education:

B.S. in Psychology (Cognitive) Magna Cum Laude
Arizona State University, Aug. 2019 - May 2021
Thesis: *Visuomotor recalibration to multi-modal cues in virtual environments*
Advisor: Dr. Michael McBeath

Northern Arizona University, Aug. 2016 - Dec. 2018 (Transfer)
Thesis: *Sex from the margins: Charting the trajectories of reproductive health in Bangladesh, Pakistan, and India across revolutions.*
Advisor: Dr. Sanjam Ahluwalia

Research experience

Aug 2022-Present	**Laboratory Manager / Research Assistant** - Virtual Environment Navigation lab Brown University, Department of Cognitive, Linguistic, and Psychological Sciences *Supervisor: Dr William Warren Jr*.
Sep. 2019-May 2021	**Lead Research Assistant** - Perception Ecological-Action Robotics and Learning Lab (PEARL). Arizona State University, Department of Psychology. *Supervisor: Dr. Michael McBeath*
Mar. 2020-May 2021	**Research Assistant -** Embodied Games Lab Arizona State University, Department of Psychology *Supervisor: Dr. Mina Johnson-Glenberg*
Apr-2020-May 2021	**Research Assistant -** METEOR Studio Arizona State University, School of Arts, Media & Engineering | School of Electrical, Computer & Energy Engineering *Supervisor: Dr. Robert LiKamWa*
Aug. 2017-Jan. 2019	**Research Scholar -** School of Women's and Gender studies Northern Arizona University, Interns to Scholars program *Supervisor: Dr. Sanjam Ahluwalia*

Leadership and Mentorship

Aug. 2022-Present	Research Mentor, *VENLab* (Brown University) Honors undergraduate thesis, CLPS: Brayson Freeman, Lucia Tian

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	Undergraduate Research assistant: Christine Wu, Kira Kelly Clarke, Mahnoor Elahi, Salma Eldeeb High school research assistant: Lovni Kaushik
Aug 2019-Aug. 2021	Research Mentor, *PEARL Lab* (Arizona State University) Mentees: Dylan Board
Aug 2017-Aug. 2019	Mentor, *Research Apprentice mentoring program* (Northern Arizona University) Mentees: Raumilya Smith, Tessa Fletcher
Aug. 2018-Aug. 2019	Vice president - *Student Undergraduate research club*
Aug. 2018-Aug. 2019	Vice President - *Research apprenticeship mentoring program*

Publications:

Johnson-Glenberg, M.C., et al. (2021) Interactive CovidCampus Simulation Game: Genesis, Design, and Outcomes. In Frontiers in Communication. 6,657756. https://doi:10.3389/fcomm.2021.657756

Johnson-Glenberg, M. C., et al. (2021) Covidcampus Game: Making Safer choices. In 7th International Conference of the Immersive Learning Research Network (iLRN). https://doi.org/10.23919/ilrn52045.2021.9459315

Ahluawalia, S. & Taylor, H. (2019) Reproduction: Health: Bangladesh and Pakistan. In Encyclopedia of Women & Islamic Cultures. https://doi: 10.1163/1872-5309_ewic_COM_002202

Highlighted Projects:

Collective motion VR experiment simulator - *Unity Project for generating crowd dynamics experiments*

- A Unity project which enables users to generate experiment trials describing patterns of dynamic crowds.
- Written in C# - Currently in use by the VENLab for multiple experiments studying spatial and temporal integration of visual information in human collective motion patterns.

Crowd Tracking computer vision pipeline - *Project to extract accurate movement data from videos of crowds*

- Developed a novel computer vision pipeline combining object detection and segmentation techniques to localize positions and movement patterns of crowd networks.
- Written in Python - currently in use by the VENLab to process and analyze videos for research on crowd network topologies

Virtual Reality Economy of Action Experiments - *Set of studies to investigate embodied perception*

- Designed a novel experimental approach to a controversial question in cognitive science, “Do our perceived action capabilities influence the way we perceive the world?”.
- Written in C#, experiment run on HTC Vive Pro Eye headset

Planetary Visor - *Immersive Data Visualization tool*

- IEEEVR selected project for which I oversaw a full interface and interaction design overhaul
- Written in C#, run on Quest 2 headsets

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COVID Campus Simulator - *Public Health decision making game*

- Led environment development and design teams for educational public health sim., programmed game behaviors in C# for STEM
- Contributed to two manuscripts about design process and behavioral outcomes from the simulator

Other Experience

Jan. 2022 - Aug. 2022	**Clinical Research Coordinator**, Adams Clinical Trials, Cambridge, Massachusetts
May. 2021 - Jan. 2022	**Quality Control Analyst**, Celerion Clinical Trials Tempe, Arizona
Aug. 2020- Aug. 2021	**Change Agent,** Changemaker Central, Arizona State University, Tempe, Arizona
Aug. 2018- Aug. 2019	**Speech and Debate Junior level Competitor,** Northern Arizona University, Flagstaff, Arizona

Awards

2019 - Smith Marshall Scholarship Winner
2018 - NAU Merit Scholarship Winner
2017 - Outstanding Entry award NAU film fest

Technical Skills

Software & Frameworks: Unity, PyTorch, R, Git, MongoDB, Blender
Programming Languages: C#, Python, Java, R, Javascript