Patrick Naughton

UIUC Computer Science Ph.D. Student

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Education

08/20-   **University of Illinois at Urbana-Champaign**   **Champaign, IL**

Ph.D. in Computer Science

08/17-05/20   **Washington University in St. Louis**   **St. Louis, MO**

B.S. Electrical Engineering, Second Major in Computer Science
GPA: 4.0/4.0

Journal and Conference Publications

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1. **P. Naughton,** J. Cui, K. Patel, S. Iba. ResPilot: Teleoperated Finger Gaiting via Gaussian Process Residual Learning. **Submitted to CoRL 2024.**

2. **P. Naughton***, J. S. Nam*, A. Stratton and K. Hauser, "Integrating Open-World Shared Control in Immersive Avatars," 2024 IEEE International Conference on Robotics and Automation (ICRA), Yokohama, Japan, 2024, pp. 17807-17813, doi: 10.1109/ICRA57147.2024.10611618.

3. **P. Naughton***, J.M.C. Marques*, JC. Peng*, Y. Zhu*, J.S. Nam, Q. Kong, X. Zhang, A. Penmetcha, R. Ji, N. Fu, V. Ravibaskar, R. Yan, N. Malhotra, K. Hauser. Immersive Commodity Telepresence with the TRINA Robot Avatar. International Journal of Social Robotics, Special Issue on Robot Avatars for Telepresence and Social Interaction, January 2024. doi: 10.1007/s12369-023-01090-1.

4. K. Hauser, E. Watson, J. Bae, J. Bankston, S. Behnke, B. Borgia, M.G. Catalano, S. Dafarra, J.B.F. van Erp, T. Ferris, J. Fishel, G. Hoffman, S. Ivaldi, F. Kanehiro, A. Kheddar, G. Lannuzel, J.F. Morie, **P. Naughton**, S. Nguyen, P. Oh, T. Padir, J. Pippine, J. Park, D. Pucci, J. Vaz, P. Whitney, P. Wu, D. Locke. Analysis and Perspectives on the ANA Avatar XPRIZE Competition. International Journal of Social Robotics, Special Issue on Robot Avatars for Telepresence and Social Interaction, January 2024. https://doi.org/10.1007/s12369-023-01095-w.

5. **P. Naughton**, K. Hauser. Structured Action Prediction for Teleoperation in Open Worlds. IEEE Robotics and Automation Letters, 7(2): 3099-3105, April 2022. doi: 10.1109/LRA.2022.3145953.

Workshop Publications

1. **P. Naughton**, J.S. Nam, J.M.C. Marques, JC. Peng, Y. Zhu, Q. Kong, K. Hauser. Pan-Tilt-Roll Televisualization With Adjustable Baseline Stereo. ICRA 2023, 2nd Workshop Toward Robot Avatars, June 2023.
2. J.M.C. Marques, JC. Peng, **P. Naughton**, Y. Zhu, J.S. Nam, K. Hauser. Commodity Telepresence with Team AVATRINA's Nursebot in the ANA Avatar XPRIZE Finals. ICRA 2023, 2nd Workshop Toward Robot Avatars, June 2023.
3. **P. Naughton***, J.M.C. Marques*, Y. Zhu*, N. Malhotra, K. Hauser. Commodity Telepresence with the AvaTRINA Nursebot in the ANA Avatar XPRIZE Semifinals. RSS 2022, Toward Robot Avatars: Perspectives on the ANA Avatar XPRIZE Competition, July 2022.
4. A. Boloor, T. Wu, **P. Naughton**, A. Chakrabarti, X. Zhang, Y. Vorobeychik. Can Optical Trojans Assist Adversarial Perturbations? ICCV 2021, Workshop on Adversarial Robustness in the Real World, October 2021.

Honors and Awards

- ANA Avatar XPrize Finals, 4th Place, Team AVATRINA, 2022
- ANA Avatar XPrize Semifinals, 6th Place, Team AVATRINA, 2021
- Chirag Foundation Graduate Fellowship in Computer Science, 2021
- NSF GRFP Honorable Mention, 2020
- Washington University in St. Louis McKelvey School of Engineering Valedictorian, 2020

Presentations

1. Oral presentation, *Integrating Open-World Shared Control in Immersive Avatars.* International Conference on Robotics and Automation. Yokohama, Japan. May 16, 2024.
2. Demo presentation, *Integrating Open-World Shared Control in Immersive Avatars.* IMMERSE Symposium. Champaign, Illinois. February 7, 2024.
3. Oral presentation, *Pan-Tilt-Roll Televisualization With Adjustable Baseline Stereo*. ICRA 2023, 2nd Workshop Toward Robot Avatars. London, UK. June 2, 2023.
4. Oral presentation, *Structured Action Prediction for Teleoperation in Open Worlds.* International Conference on Robotics and Automation. Philadelphia, Pennsylvania. May 26, 2022.
5. Poster presentation, *Learning to Fail: Failure Plans and Predictions for Crowd Navigation.* Robotics Institute Summer Scholar Symposium. Carnegie Mellon University, Robotics Institute. August 15, 2019.

6. Poster presentation, *Underground Robotics: Autonomous Navigation.* UROP Symposium. RWTH Aachen University. July 18, 2018.

Positions Held

08/20-	Research Assistant. Computer Science Department, University of Illinois at Urbana-Champaign.
02/24-06/24	Research Intern. Honda Research Institute, San Jose CA.
01/23-05/23	Teaching Assistant, Numerical Analysis (CS450). Computer Science Department, University of Illinois at Urbana-Champaign.
05/20-08/20	Research Assistant. Electrical and Systems Engineering Department, Washington University in St. Louis.
08/19-05/20	Introductory Circuits Teaching Assistant. Electrical and Systems Engineering Department, Washington University in St. Louis.
08/18-05/20	IEEE Student Chapter President. Washington University in St. Louis.
09/17-09/19	Student Web Developer. Washington University in St. Louis.
06/19-08/19	Robotics Institute Summer Scholar. Robotics Institute, Carnegie Mellon University.
05/18-07/18	RWTH UROP Research Assistant. Institute for Advanced Mining Technologies, RWTH Aachen University.
01/18-05/18	Undergraduate Research Assistant. Electrical and Systems Engineering Department, Washington University in St. Louis.
01/18-05/18	Engineering Intern. Dynamic Surgical, St. Louis, MO.