

# NATHANIEL STEELE DENNLER

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+1 978-857-9177 ◊ nathan@dennlers.net

## EDUCATION

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| <b>Ph.D. in Computer Science</b><br><b>University of Southern California (USC)</b><br><i>Advisors: Maja Matarić and Stefanos Nikolaidis</i>                               | August 2019 - Present |
| <b>B.S. in Computer Science and Robotics Engineering</b><br><b>Worcester Polytechnic Institute (WPI)</b><br><i>Advisors: Charles Rich, Loris Fichera, and Cagdas Onal</i> | May 2019              |

## RESEARCH EXPERIENCE

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| <b>Interaction and ICAROS Lab (USC)</b><br><i>Ph.D. Candidate</i>           | August 2019 - Present<br><i>Los Angeles, CA</i>     |
| <b>MIT Lincoln Labs</b><br><i>Major Qualifying Project (WPI)</i>            | August 2018 - November 2018<br><i>Lexington, MA</i> |
| <b>Interaction Lab (USC)</b><br><i>Summer Research Assistant</i>            | May 2018 - August 2018<br><i>Los Angeles, CA</i>    |
| <b>ASSISTments Lab (WPI)</b><br><i>Interactive Qualifying Project (WPI)</i> | August 2017 - May 2018<br><i>Worcester, MA</i>      |

## TEACHING EXPERIENCE

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| <b>CSCI 445: Robotics</b><br><i>Teaching Assistant</i>             | August 2021 - December 2021<br><i>USC</i> |
| <b>RBE 3002: Unified Robotics IV</b><br><i>Teaching Assistant</i>  | August 2018 - May 2019<br><i>WPI</i>      |
| <b>RBE 3001: Unified Robotics III</b><br><i>Teaching Assistant</i> | August 2018 - May 2019<br><i>WPI</i>      |
| <b>FIRST Global Challenge</b><br><i>Team Jordan Mentor</i>         | November 2016 - July 2017<br><i>WPI</i>   |

## WORK EXPERIENCE

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| <b>iRobot, inc.</b><br><i>Navigation Systems Intern</i>             | May 2019 - August 2019<br><i>Bedford, MA</i> |
| <b>WPI Information Technology</b><br><i>Service Desk Specialist</i> | March 2017 - May 2018<br><i>WPI</i>          |
| <b>QuikOrder</b><br><i>Quality Assurance Intern</i>                 | May 2017 - August 2017<br><i>Frisco, TX</i>  |

## PUBLICATIONS

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1. **N. Dennler**, Changxiao Ruan, Jessica Hadiwijoyo, Brenna Chen, S. Nikolaidis, M. Matarić. “Using Design Metaphors to Understand User Expectations of Socially Interactive Robot Embodiments.” *Transactions on Human-Robot Interaction (T-HRI)*. *Under Review*.
2. **N. Dennler**, E. Shin., M. Matarić, S. Nikolaidis. “Design and Evaluation of a Hair Combing System Using a General-Purpose Robotic Arm.” 2021 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2021).
3. **N. Dennler**, C. Yunis, J. Realmuto, T. Sanger, S. Nikolaidis, M. Matarić. “Personalizing User Engagement Dynamics in a Non-Verbal Communication Game for Cerebral Palsy.” 2021 30th IEEE International Conference on Robot Human Interactive Communication (RO-MAN).

## PRESENTATIONS

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1. “Personalization for Human-Robot Interaction in Physical Therapy,” presented at USC 2021 in Los Angeles, CA, November 2021.
2. “Robot-Assisted Hair-Brushing,” presented at NeurIPS 2019 in Vancouver, Canada, December 2019.
3. “Expression Salience of Socially Assistive Robotics,” presented at the Nation Science Foundation Engineering and Education Centers Conference in Alexandria, Virginia, October 2019.
4. “Mobile Manipulation through Tactile Sensing,” presented at MIT Lincoln Labs in Lexington, MA, October 2018.
5. “Expression Salience of Socially Assistive Robotics,” presented at the Southern California REU Conference at the Institute for Creative Technologies in Los Angeles, CA, July 2018.

## PROFESSIONAL SOCIETIES

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**Upsilon Pi Epsilon (Computer Science)**, WPI

**Tau Beta Pi (Engineering)**, WPI

**Rho Beta Epsilon (Robotics Engineering)**, WPI

**Association for Computing Machinery**, WPI

## AWARDS

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**Salisbury Award Recipient**, Worcester Polytechnic Institute, April 2019

**NSF Graduate Research Fellow**, National Science Foundation, April 2019

**Program of the Year (Merit Badge University)**, WPI, April 2019

**Distinguished Service Key (Alpha Phi Omega)**, WPI, April 2019

**USC Annenberg Fellow**, University of Southern California, February 2019

**U.S. Novice Challenge Skate Pairs Champion**, USFSA, October 2017

**Charles O. Thompson Scholar Award Recipient**, WPI, March 2016

**AP Scholar with Distinction**, College Board, July 2014 - July 2015

**National Chemistry Olympiad Semi-Finalist**, USNCO, April 2015

**U.S. National Silver Medalist in Intermediate Pairs Figure Skating**, USFSA, January 2015