# Dexter Duckworth

Curriculum Vitae
December 17th, 2014

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## Education

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| **Degree** | B.S., Computer Engineering | Mississippi State, MS |
| **Expected Graduation** | May 2015 | |
| **Current GPA** | 3.89/4.00 | |
| **University** | Mississippi State University | |

## Publications

***Duckworth, D.**, Henkel, Z., Wuisan, S., Cogley, B., Collins, C.*, and Bethel, C. L., "Therabot™: The Initial Design of a Robotic Therapy Support System," In *Proceedings of the 2015 IEEE/ACM International Conference on Human Robot Interaction (HRI 2015)*. Portland, OR. March 2-5, 2015. Under Review.

*Collins, C., **Duckworth, D.**, Henkel, Z.*, and Bethel, C. L., "Therabot™: A Robot Therapy Support System in Action," In *Proceedings of the 2015 IEEE/ACM International Conference on Human Robot Interaction (HRI 2015)*. Portland, OR. March 2-5, 2015. Under Review.

*Lalejini, L., **Duckworth, D.**, Sween, R.*, Bethel, C. L., Carruth, D., "Evaluation of Supervisory Control Interfaces for Mobile Robot Integration with Tactical Teams," *2014 IEEE Workshop on Advanced Robotics and its Social Impacts (ARSO 2014)*, 11-13 September, 2014.

***Duckworth, D.**, Shrewsbury, B.*, and Murphy, R. R., "Run the Robot Backward: Lessons Learned in Nuclear Forensics," *11th IEEE International Symposium on Safety, Security, and Rescue Robotics (SSRR 2013)*, Linköping, Sweden, October, 2013.

## Awards and Honors

- CRA Outstanding Undergraduate Male Researcher Award 2015 (2014)
- Bagley Engineering Undergraduate Poster Session Distinguished Award (2014)
- Bagley Engineering Undergraduate Student Publication Award (2013)
- Phi Kappa Phi Honors Society (2013-Present)
- Presenter at Computing for Disasters REU Poster Session (2013)
- Presenter at Safety, Security, and Rescue Robotics Conference (2013)
- Shackouls Honors College (2011-Present)

## Research Experience

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| **Lab** | Social, Therapeutic, and Robotic Systems (STaRS) Lab | Mississippi State University |
| **Mentor** | Dr. Cindy Bethel | |
| **Membership** | January 2012 - Present | |
| **Activities** | Project lead on the robot intent project, which involved programming an autonomous robot to display pending actions and to accept override commands from a user. Hardware and software work on the Therabot project, the goal of which is to design a life-like, intelligent animal robot that can be used for therapeutic support. Project Lead on the SWAT Autonomy Project funded by Army Research Labs. | |

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| **Lab** | Center for Advanced Vehicular Systems (CAVS) | Mississippi State University |
| **Mentor** | Dr. Daniel Carruth, Dr. Cindy Bethel | |
| **Membership** | November 2013 - May 2014 | |
| **Activities** | Performed software development that integrated the Robot Operating System (ROS) with a simulation environment to create a virtual robotic testbed environment. | |

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| **Lab** | Center for Robot-Assisted Search and Rescue (CRASAR) Lab | Texas A&M University |
| **Mentor** | Dr. Robin Murphy | |
| **Membership** | June 2013 - August 2013 | |
| **Activities** | Analyzed radiological sensor data from a live nuclear field exercise and used the results to design a robot sensor payload for the localization of radiation. The findings were presented at the SSRR 2013 conference. | |

## Employment

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| **Job Title** | Information Assistant |
| **Employer** | Mississippi State Housing |
| **Dates** | January 2012 - December 2013 |
| **Duties** | Provided information to students and acted as a liaison between residents and housing staff. |

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| **Job Title** | Tutor |
| **Employer** | Mississippi State Student Outreach |
| **Dates** | January 2013 - May 2013 |
| **Duties** | Tutored students in Calculus, Physics, and Electronic Circuits. |

## Service

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| **Activity** | SWAT Training Participant |
| **Dates** | November 2013 - Present |
| **Description** | Played the part of a criminal in a training exercise by the Starkville SWAT team in coordination with the STaRS lab. Actively develop hardware and software testing in monthly SWAT training exercises. |

## Skills

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| **Python** | Three years of experience with Python applied to research robots such as the Turtlebot2. |
| **ROS** | Experience with the use of the Robot Operating System (ROS) in a laboratory setting |
| **Git** | Git version control software to manage project source code with oversight of eight team members. |
| **C/C++** | Experience with Arduino-based C and the use of C/C++ as part of Operating System Design. |
| **Web** | Experience with PHP, HTML/CSS, and SQL fordesigning an inventory system for the STaRS lab. |
| **Soldering** | Four years of experience with both surface-mount and through-hole soldering. |

## Professional Memberships

IEEE, IEEE Robotics and Automation Society, IEEE Computer Society 2013-Present