

ALEXANDER LALEJINI

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EDUCATION

Mississippi State University

Present

Degree: Computer Science

Expected Graduation: May 2015

GPA: 4.0

PUBLICATIONS

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

RESEARCH EXPERIENCE

Laboratory for Autonomous Systems Research (LASR)

May 2014 - July 2014

Naval Research Laboratory

- Mentor: Dr. Greg Trafton, Dr. Laura Hiatt
- My internship involved the use of dynamic cognitive context to improve a robot object recognition system. We explored different methods of combining cognitive context and computer vision.

Center for Advanced Vehicular Systems (CAVS)

January 2014 - Present

Mississippi State University

- Mentor: Dr. Daniel Carruth, Dr. Cindy Bethel
- I have worked on the ITAR restricted CRES-GV project, which involved writing software to integrate robotic platforms in a vehicle simulation software package.

Social, Therapeutic, & Robotic Systems (STaRS) Laboratory

August 2013 - Present

Mississippi State University

- Mentor: Dr. Cindy Bethel
- I have worked as the project co-lead on the Robot Intent and Control Project. The project involved developing a system that allows for supervisory command and control of an autonomous robot platform using a variety of interfaces. This system was used in an experiment that measured the relative success of each interface.

EMPLOYMENT

Naval Research Laboratory (NRL)

May 2014 - July 2014

NREIP Intern

Washington, D.C.

- Supervisor: Dr. Greg Trafton, Dr. Laura Hiatt
- Summer 2014 undergraduate research position at the Laboratory for Autonomous Systems Research

Mississippi State University Computer Science Department

November 2013 - Present

Undergraduate Research Assistant

Mississippi State, MS

- Supervisor: Dr. Cindy Bethel
- I work as an undergraduate research assistant in the STaRS lab.

Jet Propulsion Laboratory (JPL)*USRP Intern*

Summer 2012

Pasadena, CA

- Supervisor: William R. Johnson
- I provided Earth Science software support; I developed a radiometer calibration application using Enthought Python. The application coordinated the automation of multiple calibration instruments via serial communication and provided the user with real-time data visualization from the calibration process.

Mississippi State University Physics Department*Undergraduate Research Assistant*

Fall 2011 - Spring 2012

Mississippi State, MS

- Supervisor: Dr. Angelle Tanner
- I wrote various data analysis and image processing scripts primarily for data collected at the Palomar Observatory.

Naval Research Laboratory (NRL)*Computer Clerk (2011), SEAP Intern (2010, 2009)*

Summers of 2011, 2010, 2009

John C. Stennis Space Center, Mississippi

- Supervisor: Dr. Bruce Lin
- I worked on a battlespace management interface written using the World Wind Java SDK. I also implemented a clustering algorithm for use in classifying sparse data points.

TECHNICAL SKILLS

Computer Languages

Python, C/C++, Java

Software Tools & Libraries

Robot Operating System (ROS), Enthought Python, Scipy, Numpy

Version Control

GIT

Robots

Kobuki TurtleBot 2, Dr. Robot Jaguar

Web

PHP, HTML/CSS, SQL

Operating Systems

Linux, Windows, Mac OS

AWARDS AND HONORS

- President's Scholar (Fall 2011 - Present)
- Shackouls Honors College
- Presenter at ARSO 2014
- Meritorious Award in Bagley Undergraduate Research Poster Competition (Poster title: Robot Control)

SERVICE

SWAT Training Participant*Mississippi State University*

November 2013 - Present

I am a volunteer in monthly training exercises by the Starkville SWAT team in coordination with the STaRS lab.

National SeaPerch Challenge Volunteer*Hattiesburg, MS*

May 2014

I was a poolside judge for the Heist Challenge.