

# Sarah Darrow

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## EDUCATION:

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### Mississippi State University, Starkville MS

Bachelor of Science, Computer Science, May 2019

GPA: 3.9/4.0

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## EXPERIENCE:

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### **SOCIAL, THERAPEUTIC, AND ROBOTIC SYSTEMS LAB: Researcher** **April 2016 - Present**

- Developing Therabot™: a robotic dog used for therapeutic treatment of PTSD patients
- Designing and implementing a network of sensors allowing Therabot™ to classify interaction types and react autonomously to touch

### **GOOGLE: Software Engineering Intern** **May - August 2017**

- Developed 2 internal tools for Google Flights to optimize configurations for fetching flight data and visualize results of machine learning models
- Designed web clients, implemented RPC services, and read databases using Javascript, Python, and C++

### **GOOGLE: Engineering Practicum Intern** **May - August 2016**

- Wrote code for a new feature on Google+
  - Tested written code thoroughly with unit and integration tests
  - Created multiple versions of the UI of the feature for A/B testing
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## PRESENTATIONS

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- **Sarah Darrow**, Aaron Kimbrell, Nikhil Lokhande, Nicholas Dinep-Schneider, T.J. Ciufo, Brandon Odom, Zachary Henkel, Cindy L. Bethel (2018) “Therabot™: A Robotic Support Companion”. ACM/IEEE International Conference on Human-Robot Interaction
  - **Sarah Darrow** and Cindy L. Bethel (2018) “Optimizing Interaction Enjoyment with Reinforcement Learning on Autonomous Robotic Behavior”. Mississippi State University Undergraduate Research Symposium
  - **Sarah Darrow** and Cindy L. Bethel (2017) “Gesture Recognition in a Therapeutic Robotic Dog”. Mississippi State University Undergraduate Research Symposium
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## HONORS

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### **RESEARCH AND TRAVEL FELLOWSHIPS:**

- Shackouls Honors College Undergraduate Travel Award (2018 ACM/IEEE International Conference on Human-Robot Interaction)
- Bagley College of Engineering Undergraduate Research Stipend (2016-2017 and 2017-2018)
- Google Grace Hopper Celebration Scholarship (2016 and 2017)
- National Center for Women and Information Technology 2016 Summit Change Leader Scholar

### **AWARDS AND ACHIEVEMENTS:**

- Shackouls Honors College Presidential Endowed Scholarship
- Bagley College of Engineering: Engineering Excellence Scholarship
- Mississippi State University Undergraduate Research Symposium 3rd place in Physical Sciences and Engineering
- 2015 National Center for Women in Information Technology Aspirations in Computing Award (National and Alabama State)

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## TEACHING:

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### **SERVICE:**

#### **ProjectCSGIRLS Curriculum Development Team Director**

- Leading a team of 14 students to create computer science curriculum taught to 5000+ middle school girls in the United States and India
- Hosting workshops to teach Python, Scratch, and Javascript to local students

#### **Google K12 Outreach Volunteer**

- Volunteered for 7 high school visits impacting 300+ students
- Gave tours of the Google Cambridge office, spoke on career panels, and taught coding
- Served as a Google Computer Science Summer Institute Teaching Assistant

#### **Mississippi State University Computer Science and Engineering Department Ambassador**

- Assisting in recruiting and retaining Computer Science and Software Engineering students in outreach events and advising sessions
- Acting as an on-call volunteer for tutoring and K-12 educational events

### **EMPLOYMENT:**

#### **Varsity Tutors: Tutor**

**October 2017-Present**

- Remotely tutor students and professionals in subjects including SQL, PHP, Python, and HTML/CSS
- Developed curriculum that landed a programming novice a database management job after 2.5 months of biweekly sessions

#### **Mississippi State University Learning Center: Tutor**

**November 2016-May 2017**

- Helped college students understand class material and complete programming assignments
- Tutored for Data Structures and Analysis of Algorithms, Web Development, and Physics

#### **CodeHS: Tutor**

- Graded 4000+ programming assignments completed by students and teachers; aimed at serving high schools without resources to offer computer science classes
- Answer questions to help participants understand programming assignments

#### **Mississippi State University Bulldog Bytes: Summer Camp Director**

**July 2015**

- Taught 19 middle school girls computer science concepts in app development, robotics, and cyber security and mentored 40 middle and high school participants
- Developed curriculum for a week long camp

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## SKILLS:

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### **LANGUAGES AND TECHNOLOGIES:**

- Python, Javascript, C, C++, PHP, Java
- HTML, CSS, SQL
- Windows, Linux, Git, LaTeX

### **REPRESENTATIVE COURSES:**

- Algorithms for AI
- AI Robotics
- Human Computer Interaction
- Microprocessors
- Software Engineering
- Linear Algebra
- Programming Languages
- Formal Languages and Automata
- Technical Writing
- Calculus I-III
- Engineering Statistics