# Gopika Ajaykumar

The Johns Hopkins University
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## Education

2018 - present PhD in Computer Science
The Johns Hopkins University
Advisor: Chien-Ming Huang

2021 MS in Computer Science
The Johns Hopkins University

2015 - 2018 BS in Electrical and Computer Engineering
The University of Texas at Austin

## Honors & Awards

2019 Inaugural Engineering/Nursing Joint Fellowship, *The Johns Hopkins University*
2018 Howard and Jacqueline Chertkof Endowed Fellowship, *The Johns Hopkins University*
2018 National Science Foundation Graduate Research Fellowship
2018 Graduating Honors, *The University of Texas at Austin*
2018 Roberto Rocca Scholarship, *Tenaris*
2017 Braden Communication Scholarship, *The University of Texas at Austin*
2015 - 2017 University Honors, *The University of Texas at Austin*

## Research Experience

2018 - present Graduate Researcher, **Intuitive Computing Laboratory**
*The Johns Hopkins University*
2017 - 2018 Undergraduate Research Assistant, **Nuclear and Applied Robotics Group**
*The University of Texas at Austin*
2016 Undergraduate Researcher, **Rockwell Automation Laboratory**
*Texas A&M University*

## Publications

### Journal Articles

2021 **G. Ajaykumar**, M. Stiber, and C.-M. Huang.
"Designing User-Centric Programming Aids for Kinesthetic Teaching of Collaborative Robots"
*Robotics and Autonomous Systems*

2021 **G. Ajaykumar**, M. Steele, and C.-M. Huang.
"A Survey on End-User Robot Programming"
*ACM Computing Surveys (CSUR)*

### Peer-Reviewed Conference Full Papers

2020 J. Han*, **G. Ajaykumar***, Z. Li, and C.-M. Huang.
"Structuring Human-Robot Interactions via Interaction Conventions"
In *Proceedings of the 29th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN'20)* *equal contribution

2020 Y. Wang, **G. Ajaykumar**, and C.-M. Huang.
"See What I See: Enabling User-Centric Robotic Assistance Using First-Person Demonstrations"
In *Proceedings of the 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI'20)*
Acceptance Rate: 24%

### Doctoral Consortia

2021 **G. Ajaykumar**.
"Assisted End-User Robot Programming"
In *Proceedings of the 23rd ACM International Conference on Multimodal Interaction (ICMI'21)*

### Peer-Reviewed Workshop and Conference Short Papers

2021 **G. Ajaykumar** and C.-M. Huang.
"Multimodal Robot Programming by Demonstration: A Preliminary Exploration"
*2021 RSS Workshop on Accessibility of Robot Programming and the Work of the Future*

2021 **G. Ajaykumar**, A. Mao, J. Brown, and C.-M. Huang.
"FACT: A Full-body Ad-hoc Collaboration Testbed for Modeling Complex Teamwork"
*2021 ICRA Workshop on Social Intelligence in Humans and Robots*

2020 **G. Ajaykumar** and C.-M. Huang.
"User Needs and Design Opportunities in End-User Robot Programming"
*2020 HRI Late-Breaking Report*

## Teaching Experience

Fall 2019 Teaching Assistant, **EN.601.490/690 Introduction to Human-Computer Interaction**
Department of Computer Science, The Johns Hopkins University

## Professional Service

### Conference Paper Referee

2021 International Conference on Human-Robot Interaction (HRI)
2020 International Symposium on Robot and Human Interactive Communication (RO-MAN)
2019 International Conference on Human-Robot Interaction (HRI)

## Journal Article Referee

ACM Transactions on Human-Robot Interaction

## Outreach

2019 Girl Scouts Robotics Workshop Speaker, Designing Robots That Help People
Maryland Science Center, Baltimore, MD