

# Alyssa Sheehan

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*\*Previously published under the name Alyssa Rumsey.*

## SUMMARY

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My research is situated at the intersection of professional practice, worker-centered design, and organizational studies. Together with industry partners, local government, and students, we evaluate the realities of organizations and workplace practices to develop technologies for the future of work(ers). I leverage my experience as a PhD Candidate in Human Centered Computing and role as Director for the Center of Innovation for Aerospace at Georgia Tech to balance organizational goals with worker wants and needs during the design process. As a result, I engage with a number of different domains including Designing Interactive Systems, Human-Computer Interaction, Computer-Supported Cooperative Work, and Management of Information Systems.

## EDUCATION

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### Georgia Institute of Technology - Atlanta, Georgia

<b>PhD Candidate Human Centered Computing</b>	2019 - 2023
Minor in Business Administration	
Certificate in Management of Technology	
<b>Master of Science in Digital Media</b>	2016 - 2018
<b>Bachelor of Science in History, Technology, and Society</b>	2010 - 2013
Concentration in Aerospace Engineering	

## WORK EXPERIENCE

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### Georgia Center of Innovation - Atlanta, Georgia

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|---|----------------|
| <b>Director, Aerospace</b>  | 2022 - Present |
| <ul style="list-style-type: none"><li>Responsible for daily operations including direct reports, client interaction, business development, and strategic partnerships.</li><li>Overseeing administration of a \$400k annual operating budget.</li></ul> |                |
| <b>Senior Project Manager, Manufacturing</b>  | 2016 - 2022    |
| <ul style="list-style-type: none"><li>Developed new partnerships across industry, academia, and government resulting in 150 new company collaborations annually.</li></ul>  |                |

- Led augmented and virtual reality integration and evaluation projects for manufacturers sharing best practices via 3 keynote presentations and 2 popular media articles.
- Coached business startups through product development lifecycle contributing to an economic benefit of over \$118k.
- Conducted a comparative analysis study of manufacturing education programs in Georgia resulting in a top-tier journal publication.

## Lockheed Martin Aeronautics

**Operations Leadership Development Program** - Fort Worth, TX 2015 - 2016

- Recognized as rising leadership talent and selected to participate in a rotation program fulfilling the roles of *F-35 Quality Team Lead*, *F-35 Production Supervisor*, and *Facilities Engineer*.

**C-130 Quality Engineer** - Marietta, GA 2013 - 2014

- Identified constraints through quantitative data analysis and implemented process improvements achieving a 22% defect reduction for the mid-fuselage production team.
- Developed training curriculum as Subject Matter Expert for SAP teaching over 300 engineers and received 2 leadership awards for leading and inspiring others.
- Designed and validated novel applications of Internet of Things technologies resulting in 2 white papers and improvements in production scheduling by 82%.

## RESEARCH PROJECTS

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**Designing Devices for Emergency Response:** Conducted a mixed methods study, including surveys, interviews, and field observations, of wearable biometric devices for firefighters informing product design and training.

**Virtual Reality for Real Organizations:** Received 2 grants to establish new industry partnership with Siemens and GE Aviation to conduct VR usability testing with 21 engineers and mechanics resulting in 2 publications on the design of VR for organizations and its impact on the nature of work.

**Augmented Reality for Meaningful Work:** Led a cross-functional team to complete a 15-month study examining the use of Google Glass on the shop floor in a small manufacturing company successfully utilizing \$50k in grant funding for software and hardware development.

## HONORS, AWARDS, & GRANTS

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GVU Foley Scholar Recipient	2022
Top 10 in 10 Young Professional Award	2022
GVU Foley Scholar Finalist	2021
Designing Interactive Systems (DIS), Best Paper	2019
Career Research & Innovation Development Conference (CRIDC), Honorable Mention	2019
Siemens, Education and Research Grant	2019

GVU & IPaT, Community Engagement Grant	2018
General Electric, Presidential Fellow - Warsaw, Poland	2017
GT Community Impact Award, Finalist	2017
Lockheed Martin, Leadership Award (x2)	2015

## **PUBLICATIONS & PRESENTATIONS**

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*Note. Peer-reviewed archival conference proceedings are considered a primary publication venue in Human Centered Computing disciplines. These papers are rigorously peer reviewed. Thus, conference proceedings in Human Centered Computing are comparable in both content and review process to peer-reviewed journal articles in other journal-based disciplines.*

### **Peer Reviewed Conference Proceedings**

- C4. (Revisions Pending) 2023 Conference on Computer Supported Cooperative Work and Social Computing (PACM HCI '23).
- C3. A. Rumsey and C. A. Le Dantec. *Manufacturing Change: The Impact of Virtual Environments on Real Organizations*. In Proceedings of the 2020 on Computer Human Interaction Conference (CHI '20).
- C2. A. Rumsey and C. A. Le Dantec. *Clearing the Smoke: The Changing Identities and Work of Firefighters*. In Proceedings of the 2019 on Designing Interactive Systems Conference (DIS '19). **Best Paper Award**.
- C1. A. Rumsey, J. Morehouse and C. Dinsmore. *Evaluating Manufacturing Workforce Development Initiatives in Georgia*. In Proceedings of the 47th North American Research Conference 2019 (NAMRC '19).

### **Book Chapter**

- B1. A. Rumsey and C. A. Le Dantec. *Escaping the Holodeck: Designing Virtual Environments for Real Organizations*. Human-Technology Interaction: Shaping the Future of Industrial User Interfaces. Springer (Springer Nature), 2022.

### **Workshop Papers**

- A. Rumsey. *Designing Technologies for the Blue-Collar Workforce*. Convergence Conference: At the Boundary: Exploring Human-AI Futures in Context. Work in the Age of Intelligent Machines (WAIM '19).
- A. Rumsey. *The Impact of 'Smart' Technology on the Blue-Collar Workforce*. Workshop: The Future of Work. Human Computer Interaction Consortium (HCIC '19).
- A. Rumsey and C. A. Le Dantec. *Manufacturing Transformation: Understanding the Impact of New Digital Technologies on Workplace Practice*. Workshop: The Industrial Internet of Things: New Perspectives on HCI and CSCW within Industry Settings. 2018 Conference on Computer Supported Cooperative Work and Social Computing (CSCW '18).

Lockheed Martin White Papers - *The Use of Live-Streaming for Time Savings in the Inspection Process*, 2015; *A Proposal for Semi-Autonomous Drone use during Aircraft Maintenance Schema*, 2016.

## Popular Media Articles

- A. Rumsey. 2020. COVID encouraging small and mid-sized manufacturers to use new technologies. *SmartIndustry*. <https://www.smartindustry.com/articles/2020/covid-encouraging-small-and-mid-sized-manufacturers-to-use-new-technologies/>
- A. Rumsey. 2020. Gearing up the next-generation workforce. *IndustryWeek*. <https://www.industryweek.com/talent/article/21123026/gearing-up-the-nextgeneration-workforce>

## Conference Presentations

- A. Rumsey. *Manufacturing Change: The Impact of Virtual Environments on Real Organizations*. Computer Human Interaction Conference. Virtual. (CHI '20).
- A. Rumsey. *Clearing the Smoke: The Changing Identities and Work of Firefighters*. Designing Interactive Systems Conference. San Diego, CA. (DIS '19).
- A. Rumsey. *Designing Technologies for the Blue-Collar Workforce*. Work in the Age of Intelligent Machines. New York, NY. (WAIM '19).
- A. Rumsey. *Evaluating Manufacturing Workforce Development Initiatives in Georgia*. North American Research Conference. Erie, PA. (NAMRC '19).
- A. Rumsey. *Clearing the Smoke*. Career Research and Innovation Development Conference. Atlanta, GA. (CRIDC '19).
- A. Rumsey. *Smart Cities: The Intersection of Citizenship*. Society for Social Studies of Science. Boston, MA. (4S '17).

## Invited Presentations

- Invited Talk*. "Equipping the Next Generation Workforce." Georgia Technical College Annual Meeting, 2022.
- Invited Moderator*. "Digitalization Driving Operations and Growth." Next Generation Manufacturing Annual Summit, 2022.
- Invited Talk*. "Designing Tools for Meaningful Work in Blue Collar Industries." Internet of Things for Manufacturing Symposium, 2021.
- Invited Talk*. "Understanding the Textiles and Technology Landscape." Women's Leadership Series: Next Generation Manufacturing, 2020.
- Invited Talk*. "XR in the Workplace." Internet of Things for Manufacturing Workshop, 2019.
- Invited Talk*. "The Future of Work in Manufacturing." Georgia Power Research Group, 2019.
- Invited Talk*. "Navigating Product Dev with Design Thinking." Prototype to Production: LaunchPad2X, 2018.

*Invited Panelist. Knowing your Resource Landscape. Women in Manufacturing, Savannah Shines Summit, 2017.*

## **Other Invited Engagements**

*Poster Presenter. "Data Accountabilities for AR, VR, and Wearable Tech." GVU Research Showcase, 2022.*

*Poster Presenter. "Understanding the Impact of VR on Engineering Analysis." GVU Research Showcase, 2019.*

*Poster Presenter. "In Her Footsteps." Digital Integrative Liberal Arts Center (DILAC) Dean's Showcase, 2017.*

*Poster Presenter. "The Intersection of Citizenship and Smart Cities." GVU Research Showcase, 2017.*

## **TEACHING EXPERIENCE**

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CS8001 Intro to Human Centered Computing	Fall 2021
<ul style="list-style-type: none"><li>Graduate Student Instructor for incoming and returning PhD students</li></ul>	
CS3750 User Interface Design	Summer 2021
<ul style="list-style-type: none"><li>Instructor of Record for 70 undergraduate students.</li><li>Overall Teaching Effectiveness Score - 4.7 out of 5</li></ul>	
GT1000 Research Methods	Summer 2020
<ul style="list-style-type: none"><li>Instructor of Record for 25 undergraduates teaching mixed methods research</li><li>Overall Teaching Effectiveness Score - 4.5 out of 5</li></ul>	
GT1000 Research Methods	Summer 2019
<ul style="list-style-type: none"><li>Instructor of Record for 25 undergraduates teaching mixed methods research</li><li>Overall Teaching Effectiveness Score - 4.1 out of 5</li></ul>	
The Bridge Academy, Volunteer Instructor	2016 – 2018
<ul style="list-style-type: none"><li>Developed and taught curriculum for 20 high school students on Design Thinking</li></ul>	

## **LEADERSHIP**

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Women in Manufacturing, President	Present
Next Generation Manufacturing, Entrepreneurship Chair	Present
Lathems Mill HoA, Treasurer	Present
Gwinnett Movers & Makers, Judge	2022
Women in Manufacturing, Director of Manufacturing Technology	2021
Children's Hospital of Atlanta (CHOA), Qualitative Lead GT Consulting Club	2020
Women in Manufacturing, Membership Chair	2020
The Bridge Academy, Board Member	2018
GT Ivan Allen College Affinity Group, Founder and President	2018

## SERVICE

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### Conference Program Committee Activities

CHI 2022 Design Track B, Program Committee Assistant

COMPASS 2021, Shadow Program Committee

CHI 2021 Design Track A, Program Committee Assistant

IEEE VR 2020, Sponsorship and Exhibits Committee Member

DIS 2019, Session Chair for Wearable Devices

### Conference Reviewing

CHI, 2018 - Present

DIS, 2019 - Present

CSCW, 2018 - Present

4S, 2017 - Present

### Journal Reviewing

Association for Information Systems, 2018

## PRESS COVERAGE

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- Forbes. *Here are a couple of great examples of digital tools revving up technical training.* <https://www.forbes.com/sites/jimvinoski/2021/12/30/here-are-a-couple-of-great-examples-of-digital-tools-revving-up-technical-training/?sh=782fdcfded26>
- Industry Week. *Innovation Lab Helps Small Manufacturers Grow.* <https://www.industryweek.com/the-economy/article/21148817/innovation-lab-helps-small-manufacturers-grow>
- Tech Unbound Podcast. *Don't Get Burned. Understanding Tech Adoption Among Firefighters.* <https://www.spreaker.com/user/10751784/ep8-don-t-get-burned-understanding-tech>
- Statesboro Herald. *Looking for more female engineers.* <https://www.statesboroherald.com/local/looking-more-female-engineers/>