

# Dr. Aluna Everitt

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I am a researcher in **Human-Computer Interaction, Design, and Engineering** and my expertise are on **digital fabrication approaches for developing novel and emerging technologies**. I have 7 years' experience **conducting quantitative and qualitative research**, showing the versatility of my skills within the HCI field. I have also been involved in **over 300 hours of teaching activities** and **participating in grant writing bids**. Additionally, I have extensive experience in **administrative responsibility** from my 4-year role as an Assistant College Dean. **My research vision** is to bridge the gap between digital and physical spaces by utilising digital fabrication for designing, developing, and evaluating the next generation of interactive and physical interfaces.

## Research Positions

<i>Feb 2021 – Present</i>	<b>Research Associate, University of Oxford</b> (Prof. Niki Trigoni & Dr. Andrew Markham - Cyber Physical Systems) Conducting research in Human-Robot Interaction supported by Amazon Web Services in the Oxford-Singapore Human-Machine Collaboration Programme.
<i>Sept 2021 – Present</i>	<b>Junior Research Fellow, Kellogg College, University of Oxford</b> Continuing research in human-robot interaction and college advisor to postgraduate students within Kellogg College, University of Oxford.
<i>Jan 2021 – Present</i>	<b>Senior Visiting Researcher, Faculty of Engineering, University of Bristol</b> Continuing work on acoustic fabrication and large-scale soft robotics.
<i>June 2019 – Jan 2021</i>	<b>Research Associate, University of Bristol</b> (Prof. Mike Fraser & Dr. Anne Roudaut - Bristol Interaction Group) Specialising in developing new fabrication techniques using novel acoustic technologies.
<i>May - Sept 2018</i>	<b>Visiting Researcher, Carleton University, Canada</b> (Prof. Audrey Girouard - Creative Interactions Lab) Designing and developing digital fabrication approach for multi-material 3D printed deformable wearables with embedded electronics and sensors.
<i>June - Oct 2015</i>	<b>Research Assistant, Lancaster University</b> (Dr. Jason Alexander) Research on the development of interactive shape-changing public installations.
<i>June - Sept 2014</i>	<b>Summer Research Intern, HighWire Doctoral Training Centre</b> (Prof. Gordon Blair) Multi-disciplinary research infusing computer science, management, and design.

## Education Background

<i>Oct 2015 - May 2019</i>	<b>PhD in Computer Science (Human Computer Interaction)</b> School of Computing and Communications, Lancaster University <b>Thesis Title:</b> Supporting the Design and Development of Shape-Changing Displays Through Digital Fabrication Approaches. <b>Supervisor:</b> Dr. Jason Alexander
<i>Sept 2012- June 2015</i>	<b>Undergraduate Bachelor of Science. First Class (Honours)</b> School of Computing and Communications, Lancaster University Bachelor's in Information Technology for Creative Industries. (Software development, web applications, digital imaging, databases, networking) <b>Dissertation:</b> Novel Approach to Interface Fabrication Using Laser Cut Clear Perspex.

## Teaching Experience

Feb 2022	<b>Teaching Assistant, Department of Engineering Science, University of Oxford</b> Teaching assistant in Internet of Things for the EPSRC Centre for Doctoral Training in Autonomous Intelligent Machines & Systems (AIMS).
2019 – '20	<b>Teaching Associate, Masters - Interactive Devices, University of Bristol</b> Supervision on <b>Masters'</b> course for designing and developing interactive devices. Student projects accepted for CHI 2020 late breaking work*.
2015 – '18	<b>Associate Lecturer, Computing and Communications, Lancaster University</b> 300+ teaching hours. Responsible for supervision of undergraduate labs, independently running seminars, and marking of coursework. Teaching Modules: <ul style="list-style-type: none"><li>- Mentoring Final Year Projects Unit (<b>3rd Year Undergrad</b>)</li><li>- Human-Computer Interaction Unit (<b>2nd Year Undergrad</b>)</li><li>- Creative Technologies Unit (<b>1st Year Undergrad</b>)</li></ul>

## Professional/Administrative Experience

2015 – '19	<b>Assistant Dean, Grizedale College, Lancaster University</b> Extensive experience handling disciplinary cases regarding students' behaviour and welfare as well as supporting equity, diversity, and inclusion for students.
2013 – '17	<b>Freelance Graphic Designer</b> Producing digital and print based graphic design content for a range of clients, including logos and company branding identities.

## Publications

*Peer Reviewed  
Conference Processings*

- Everitt, A.**, and Sturdee, M. Supporting Prototyping of Novel Interfaces Using Laser Cut Clear Perspex. To appear in the Proceedings of the 16th International Conference on Tangible, Embedded, and Embodied Interaction. (**TEI 2022**). Work in Progress.
- Everitt, A.**, Eady, A., and Girouard, A. Enabling Multi-Material 3D Printing for Designing and Rapid Prototyping of Deformable and Interactive Wearables. In the Proceedings of the 20th International Conference on Mobile and Ubiquitous Multimedia. (**MUM 2021**)  
**\*Best Paper Award.**
- Kim, H., **Everitt, A.**, Tejada, C., Zhong, M., Ashbrook, D. MorpheesPlug: A Toolkit for Prototyping Shape-Changing Interfaces. In the Proceedings of the Conference on Human Factors in Computing Systems. (**CHI 2021**) [[pdf](#)]
- Chinareva, S., Shah, P., Kumpik, D., Jones, J., Tumia, N., **Everitt, A.** Lotus: Mediating Mindful Breathing. Extended abstract at the Conference on Human Factors in Computing Systems. (**\*CHI 2020 LBW**) [[pdf](#)]
- Fraser, M., Liu, J., Shapiro, J., Taylor, J., **Everitt, A.**, Digital-is-Physical: How Functional Fabrication Disrupts Ubicomp Design Principles. Halfway to the Future symposium proceedings, Nottingham, UK. (**HTFF 2019**) [[pdf](#)]
- Sturdee, M., **Everitt, A.**, Lindley, J., Coulton, P., Alexander, J. Visual Methods for the Design of Shape-Changing Interfaces. In IFIP Conference on Human-Computer Interaction (pp. 337-358). Springer, Cham. (**INTERACT 2019**) [[pdf](#)]

Nabil, S., **Everitt, A.**, Sturdee, M., Alexander, J., Bowen, S., Wright, P., Kirk, D. ActuEating: Designing, Studying and Exploring Actuating Decorative Artefacts. In proceedings of the Conference on Designing Interactive Systems. **(DIS 2018)** [[pdf](#)]

**Everitt, A.**, & Alexander, J. PolySurface: A Design Approach for Rapid Prototyping of Shape-Changing Displays Using Semi-Solid Surfaces. In Proceedings of the 2017 Conference on Designing Interactive Systems. **(DIS 2017)** [[pdf](#)]

**Everitt, A.**, Taher, F., & Alexander, J. ShapeCanvas: An exploration of shape-changing content generation by members of the public. In Proceedings of the Conference on Human Factors in Computing Systems. **(CHI 2016)** [[pdf](#)]

*Peer Reviewed  
Journal Articles*

**Everitt, A.**, & Alexander, J. 3D Printed Deformable Surfaces for Shape-Changing Displays. Research Topic on Shape Changing Robotic Structures and Interfaces.

**Frontiers in Robotics & AI 2019.** [[pdf](#)]

*Other Publications*

**Everitt, A.**, Enabling Digital Fabrication Approaches for the Design and Prototyping of Robotic Artifacts. Position paper for the “Research Through Design Approaches in Human-Robot Interaction” workshop held in conjunction with the 16th international conference on human-robot interaction. **HRI 2021.** [[pdf](#)] [[link](#)]

**Everitt, A.**, Bridging the Gap Between Digital and Physical Design Spaces with Shape-Changing Interfaces. Position paper for the “Where Art Meets Technology: Integrating Tangible and Intelligent Tools in Creative Processes” workshop at SIGCHI Conference on Human Factors in Computing Systems. **CHI 2020.**

**Everitt, A.**, Laser-Cut and 3D Printed Semi-Solid Surfaces as a Fabrication Technique for Developing Shape-Changing Displays. Workshop on Shape Changing Robotic Structures and Interfaces. **IROS 2018.** [[pdf](#)] [[link](#)]

**Everitt, A.**, Taher, F., & Alexander, J., Exploring ShapeCanvas: A Shape-Changing Display for Novice User Content Generation. Position paper for the Sharing Perspectives on the Design of Shape-Changing Interfaces, workshop at SIGCHI Conference on Human Factors in Computing Systems. **CHI 2016.** [[pdf](#)]

## Professional Development / Services / Press

*Organising  
Committees*

**Organising committee** (Social Media Chair) for The ACM International Conference on Mobile Human-Computer Interaction. **MobileHCI 2022.**

**Organising committee** (Demo and Video Chair) for the 21<sup>st</sup> International Conference on Mobile and Ubiquitous Multimedia. **MUM 2022.**

*Program  
Committees*

**Program committee member** (Associate Chair) for The ACM CHI Virtual Conference on Human Factors in Computing Systems. **CHI 2022.**

**Program committee member** (Associate Chair) for the 16th ACM International Conference on Tangible, Embedded and Embodied Interaction. **TEI 2022.**

**Program committee member** (Associate Chair) for The ACM International Conference on Mobile Human-Computer Interaction. **MobileHCI 2021.**

**Program committee member** (Associate Chair) for The ACM CHI Virtual Conference on Human Factors in Computing Systems. **CHI 2021.**

**Program committee member** (Associate Chair) for the 15th ACM International Conference on Tangible, Embedded and Embodied Interaction. **TEI 2021.**

	<p><b>Program committee member</b> for the 19<sup>th</sup> International Conference on Mobile and Ubiquitous Multimedia. <b>MUM 2020</b>.</p> <p><b>Committee member</b> for <b>CHI 2020</b> Student Research Competition.</p> <p><b>Organiser</b> of visiting speakers and seminars at BIG lab (2019 - 2020).</p>
<i>Press</i>	<p><b>Press</b> article on my PhD Thesis research by 3DPrint.com (March 2020). [<a href="#">link</a>]</p>
<i>Selected Invited Talks</i>	<p>Invited <b>outreach STEM talk</b> at Magdalen College High School (October 2021)</p> <p>Invited <b>Lecture</b> at the University of Cardiff (March 2021).</p> <p>Invited <b>Lecture</b> at the University of Bristol (Masters) (December 2020).</p> <p>Invited <b>talk</b> at The Global LED Summit (November 2020).</p> <p>Invited <b>talk</b> at AMNET - Additive Manufacturing Network Symposium (March 2020).</p> <p>Invited <b>talk</b> at Meta Material Workshop, University of Bristol (November 2018).</p> <p>Invited <b>talk</b> at Carleton University (July 2018).</p>
<i>Training &amp; Research Community Engagement</i>	<p>Certified training with <b>Optomec Aerosol Jet 5-Axis 3D printer</b> for printed electronics.</p> <p>Part of the <b>EPSRC UK Metamaterials Network</b> (June 2020).</p> <p>Invited to The <b>Marie Curie Fellowship Master Class</b> at Aarhus University (May 2020).</p> <p>Workshop on Metamaterials and Interaction Design, <b>Lorentz Centre</b> (Jan 2020).</p> <p><b>SIGCHI Symposium &amp; Summer School</b> on Computational Fabrication and Smart Matter, MIT, Cambridge (June 2017). [<a href="#">link</a>]</p> <p><b>Dagstuhl Seminar</b> on Shape-Changing Interfaces, Schloss Dagstuhl (Feb 2017). [<a href="#">link</a>]</p> <p>Workshop on 3D printing technologies at <b>Hewlett Packard</b>, California (May 2016).</p>
<i>Reviewing</i>	<p>CHI 2017-2022, UIST 2017-2021, DIS 2017-2021, TEI 2021-2022, MUM 2020, MobileHCI 2021-2021, ISS 2016/2020, Frontiers in Robotics and AI Journal 2019, Oxford Academic - Interacting with Computers Journal 2020</p>

## Funding

<i>Successful Funding</i>	<p>Internal Faculty Seminar Series Funding: Bristol Interaction Group - <b>£3,000</b> (2019)</p> <p>Friend's Programme Research Travel Conference Fund - <b>£500</b> (2019)</p> <p>SIGCHI Summer School Travel Grant - <b>£800</b> (2017)</p> <p>Graduate School Travel Grant, Lancaster University <b>£1,000</b> (June 2017)</p> <p>PhD Studentship from the School of Computing and Communications, Lancaster University <b>£40,000</b> (2015 - 2019)</p>
<i>Grant Bids in Preparation</i>	<p>Marie Curie Fellowship (Aarhus University – 2-year project)</p> <p>UK Research Council EPSRC Co-Investigator Grant Bid (£500,000 proposed)</p> <p>HABITAT - Embedding Interactive Devices in the Home Environment to Support Healthy Habits and Behaviour Change – *Collaborator on grant with the University of Cardiff (European Research Council Executive Agency)</p>