

Dr. Aluna Everitt

Cyber Physical Systems, University of Oxford
aluna.everitt@cs.ox.ac.uk



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 democratise the development of emerging technologies**. More specifically, by establishing more accessible approaches for designing and building emerging technologies such as robotics, wearables, and shape-changing interfaces.

Research Positions

<i>Feb 2021 – Present</i>	Research Associate, University of Oxford (Prof. Niki Trigoni & Prof. 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>	Junior Research Fellow, Kellogg College, University of Oxford Continuing research in human-robot interaction and college advisor to postgraduate students within Kellogg College, University of Oxford.
<i>Jan 2021 – Present</i>	Senior Visiting Researcher, Faculty of Engineering, University of Bristol Continuing work on acoustic fabrication and large-scale soft robotics.
<i>June 2019 – Jan 2021</i>	Research Associate, University of Bristol (Prof. Mike Fraser & Dr. Anne Roudaut - Bristol Interaction Group) Specialising in developing new fabrication techniques using novel acoustic technologies.
<i>May - Sept 2018</i>	Visiting Researcher, Carleton University, Canada (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>	Research Assistant, Lancaster University (Prof. Jason Alexander) Research on the development of interactive shape-changing public installations.
<i>June - Sept 2014</i>	Summer Research Intern, HighWire Doctoral Training Centre (Prof. Gordon Blair) Multi-disciplinary research infusing computer science, management, and design.

Education Background

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

Teaching Experience

- Feb 2022* | **Teaching Assistant, Department of Engineering Science, University of Oxford**
Teaching assistant in Internet of Things for the EPSRC Centre for Doctoral Training in Autonomous Intelligent Machines & Systems (AIMS).
- Sept 2019 – May '20* | **Teaching Associate, Masters - Interactive Devices, University of Bristol**
Supervision on Masters' course for designing and developing interactive devices. Student projects accepted for CHI 2020 late breaking work*.
- Sept 2015 – June '18* | **Associate Lecturer, Computing and Communications, Lancaster University**
300+ teaching hours. Responsible for supervision of undergraduate labs, independently running seminars, and marking of coursework. Teaching Modules:
 - Mentoring Final Year Projects Unit (**3rd Year Undergrad**)
 - Human-Computer Interaction Unit (**2nd Year Undergrad**)
 - Creative Technologies Unit (**1st Year Undergrad**)

Professional/Administrative Experience

- Feb 2022 - Present* | **Early Career Researcher Co-ordinator, University of Oxford**
Responsible for strengthening and improving engagement, integration and career development of Early Career Researchers (ECRs) and supporting equality, diversity and inclusion within the Department of Computer Science.
- Sept 2015 – June '19* | **Assistant Dean, Grizedale College, Lancaster University**
Extensive experience handling disciplinary cases regarding students' behaviour and welfare as well as supporting equity, diversity, and inclusion for students.
- May 2013 – June '17* | **Freelance Graphic Designer**
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 Co-Chair) for the ACM Interactive Surfaces and Spaces Conference. **ACM ISS 2022.**

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 21st International Conference on Mobile and Ubiquitous Multimedia. **MUM 2022.**

*Program
Committees*

Member of the CHI 2022 Awards Committee – Interacting with Devices.

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.**

	<p>Program committee member (Associate Chair) for The ACM International Conference on Mobile Human-Computer Interaction. MobileHCI 2021.</p> <p>Program committee member (Associate Chair) for The ACM CHI Virtual Conference on Human Factors in Computing Systems. CHI 2021.</p> <p>Program committee member (Associate Chair) for the 15th ACM International Conference on Tangible, Embedded and Embodied Interaction. TEI 2021.</p> <p>Program committee member for the 19th International Conference on Mobile and Ubiquitous Multimedia. MUM 2020.</p> <p>Committee member for CHI 2020 Student Research Competition.</p> <p>Organiser of visiting speakers and seminars at BIG lab (2019 - 2020).</p>
<i>Press</i>	<p>Press article on my PhD Thesis research by 3DPrint.com (March 2020). [link]</p>
<i>Selected Invited Talks</i>	<p>Invited outreach STEM talk at Magdalen College High School (October 2021)</p> <p>Invited Lecture at the University of Cardiff (March 2021).</p> <p>Invited Lecture at the University of Bristol (Masters) (December 2020).</p> <p>Invited talk at The Global LED Summit (November 2020).</p> <p>Invited talk at AMNET - Additive Manufacturing Network Symposium (March 2020).</p> <p>Invited talk at Meta Material Workshop, University of Bristol (November 2018).</p> <p>Invited talk at Carleton University (July 2018).</p>
<i>Training & Research Community Engagement</i>	<p>Certified training with Optomec Aerosol Jet 5-Axis 3D printer for printed electronics.</p> <p>Part of the EPSRC UK Metamaterials Network (June 2020).</p> <p>Invited to The Marie Curie Fellowship Master Class at Aarhus University (May 2020).</p> <p>Workshop on Metamaterials and Interaction Design, Lorentz Centre (Jan 2020).</p> <p>SIGCHI Symposium & Summer School on Computational Fabrication and Smart Matter, MIT, Cambridge (June 2017). [link]</p> <p>Dagstuhl Seminar on Shape-Changing Interfaces, Schloss Dagstuhl (Feb 2017). [link]</p> <p>Workshop on 3D printing technologies at Hewlett Packard, 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 - £3,000 (2019)</p> <p>Friend's Programme Research Travel Conference Fund - £500 (2019)</p> <p>SIGCHI Summer School Travel Grant - £800 (2017)</p> <p>Graduate School Travel Grant, Lancaster University £1,000 (June 2017)</p> <p>PhD Studentship from the School of Computing and Communications, Lancaster University £40,000 (2015 - 2019)</p>
---------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

*Grant Bids
in Preparation*

Marie Curie Fellowship (Aarhus University – 2-year project)

UK Research Council EPSRC Co-Investigator Grant Bid (£500,000 proposed)

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)

References

Prof. Andrew Markham

Professor, Director of Software Engineering Programme

Department of Computer Science

University of Oxford

United Kingdom

andrew.markham@cs.ox.ac.uk

Prof. Jason Alexander

Professor, Department of Computing Science

University of Bath

United Kingdom

jma73@bath.ac.uk