

# Maryam Bandukda

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## SUMMARY

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- Early career researcher in human-computer interaction (HCI), researching accessibility and assistive technologies for blind and low vision people
- 10 years industry experience in software development, project management, and business analysis in the UK and Pakistan
- Teaching and mentorship experience: HCI, systems engineering, assistive technologies, programming
- Technical skills: HTML5, Javascript, CSS, Arduino programming, Python (basic), 3D printing, laser cutting, physical computing and prototyping, sketching and digital prototyping
- Research skills: qualitative research methods (interviews, focus groups, contextual inquiry, diary studies, thematic analysis), quantitative research methods (survey, basic statistical analysis)
- Research interests: participatory research and design, disability studies, social justice and inclusion

## EDUCATION

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### PhD Human-Computer Interaction

2017 – Present

University College London Interaction Centre (UCLIC) and  
Global Disability Innovation Hub (GDI Hub)

London, UK

- Thesis: Technology-mediated nature engagement for blind and partially sighted people
- Funded by Engineering and Physical Sciences Research Council (EPSRC)
- Committee: Dr. Catherine Holloway, Prof. Nadia Berthouze, Dr. Aneesha Singh

### MSc Human-Computer Interaction

2016 – 2017 | 2:1

UCLIC

London, UK

- Assistive technologies, physical computing, interaction design, and affective computing
- Thesis title: A contextual inquiry of blind navigation at Queen Elizabeth Olympic Park
- Advisor: Dr. Catherine Holloway

### MSc Software Project management

2008 – 2010 | GPA: 3.4

National University of Computing and Emerging Sciences (NUCES)

Karachi, Pakistan

- Organisational behaviour, marketing management, software project and process management, research methods
- Thesis title: Efficacy of distributed pair programming
- Advisor: Prof. Zafar Nasir

### BSc Computer Science

2003 – 2006 | GPA: 3.7

University of Karachi

Karachi, Pakistan

## PUBLICATIONS

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### Conference and Journal Papers

- [P.2] **Maryam Bandukda**, Catherine Holloway, Aneesha Singh, Nadia Berthouze. PLACES: A Framework for Supporting Blind and Partially Sighted People in Outdoor Leisure Activities (**Accepted**)  
ASSETS2020 – 22nd International ACM SIGACCESS Conference on Computers and Accessibility, October 26 – 28, 2020, Athens, Greece.

## Peer Reviewed Extended Abstracts and Doctoral Consortium

- [EA.2] **Maryam Bandukda**. Technology-Mediated Nature Interactions for Blind and Partially Sighted People. Doctoral Consortium at the 21st International ACM SIGACCESS Conference on Computers and Accessibility, October 25 – 30, 2019, Pittsburgh, PA, USA.
- [EA.1] **Maryam Bandukda**, Aneesha Singh, Nadia Berthouze, and Catherine Holloway. Understanding Experiences of Blind Individuals in Outdoor Nature. In Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI EA '19), May 4-9, 2019, Glasgow, UK.

## Posters and Talks

- [T.4] Poster presentation: Open space accessibility for people with severe sight loss at International Conference of Navigation, 2019, Edinburgh, UK
- [T.3] Talk Presentation at UCLIC Annual PhD Showcase, 2019, London, UK
- [T.2] Poster presentation at UCLIC Annual PhD Showcase, 2018, London, UK
- [T.1] Poster presentation at Sensing Nature: Wellbeing with nature and sight impairment, 2018, London, UK

## AWARDS

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- 2019 SIGACCESS Doctoral Consortium Travel Grant for ASSETS 2019
- 2017 EPSRC Doctoral Training Program PhD Scholarship

## ACADEMIC AND RESEARCH EXPERIENCE

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<b>Teaching Assistant</b>	<b>UCL</b>
<b>HUMAN-COMPUTER INTERACTION</b> Module Leader: Dr. Chris Evans Teaching HCI lab sessions for 2 <sup>nd</sup> year CS undergrad students including user research, sketching, personas, low and high-fidelity prototyping and mentoring for 10 team projects	2018, 2019
<b>ACCESSIBILITY AND ASSISTIVE TECHNOLOGIES</b> Module Leader: Prof. Catherine Holloway Organising and facilitating guest lectures, user research focus groups and interviews for student projects	2018, 2019
<b>SYSTEMS ENGINEERING</b> Module Leader: Sarah Sanders Mentoring 3 <sup>rd</sup> year undergrad students on group projects including product research, requirement gathering, agile development methodologies, system modelling with UML, object-oriented design, database design	2019
<b>INTRODUCTION TO PROGRAMMING</b> Module Leader: Karen Stepanyan Assisting introductory 2 <sup>nd</sup> year undergrad lab sessions on Java, C#, Web development	2018
<b>Project Mentoring and Supervision</b>	<b>UCL</b>
Accessibility and Assistive Technologies Mini-Projects	2019
<b>Research Assistant</b>	<b>UCL</b>
Video data analysis on WeDraw project ( <a href="https://www.wedraw.eu/">https://www.wedraw.eu/</a> ); exploiting the best sensory modality for learning arithmetic and geometry at primary school	2018

## INDUSTRY EXPERIENCE

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<b>Academic Research Communication Liaison   GDI Hub, London</b>	2019
Liaising between the GDI Hub academic research group and communication and engagement teams to help manage publication of academic research on GDI Hub and UCL communication platforms and providing technical support to the communications team for managing GDI Hub website.	
<b>Business Analyst   SpringerNature, London</b>	2015 – 2016
Creating business process workflows, defining project requirements, stakeholder management, facilitating project inception workshops	
<b>Agile Project Manager   SpringerNature, London</b>	2013 – 2015
Used Agile methodologies for project management of various projects at NPG, Springer Healthcare, and BiomedCentral.	
<b>Digital Project Manager   London</b>	2011 – 2013
Various digital project management positions working on digital marketing campaigns, websites, and mobile apps. Responsibilities included account management, requirements gathering and product backlog management, sketching wireframes, a bit of programming, and project delivery.	
<b>Technical Project Manager   Creative Chaos, Karachi</b>	2010
Stakeholder management, requirements gathering, and leading the design, development and delivery of various web-based projects.	
<b>Developer   Creative Chaos, Karachi</b>	2007 – 2009
Full stack web development, CSS, HTML, Javascript, PHP, ASP.net, C#, Java, MySQL, SQL Server.	

## ACADEMIC & VOLUNTARY SERVICE

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<b>Associate Chair (AC)</b>	
Late-Breaking Work, ACM CHI 2020	
<b>Student Volunteering</b>	
ACM UbiComp 2019, IDC 2020, MobileHCI 2020	
<b>Peer Reviewer</b>	
ACM CHI 2019, 2020	
<b>Research Student Representative</b>	2018 – 2020
Organising academic and social events for students, representing postgraduate students at Staff-Student Consultative Committee (SSCC) meetings, communicating student concerns to department administration	
<b>My Guide at Guide Dogs for the Blind Association   London</b>	2019 – Present
Befriending people with sight loss, sight guiding, and supporting them in physical activities and communication as and when needed. Part of my role also involves safeguarding and reporting to volunteer manager.	
<b>Volunteer at Royal Society for Blind Children   London</b>	2018 – Present
Sighted guiding children and young people, safeguarding, and supporting them in physical activities and communication as and when needed.	

## REFERENCES

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**Prof. Catherine Holloway**, *Professor at UCLIC and Academic Director of GDI Hub*

UCL Interaction Centre (UCLIC), University College London 66 - 72 Gower Street, London, WC1E 6EA, United Kingdom  
c.holloway@ucl.ac.uk

**Prof. Nadia Berthouze**, *Professor at UCLIC*

UCL Interaction Centre (UCLIC), University College London 66 - 72 Gower Street, London, WC1E 6EA, United Kingdom  
n.berthouze@ucl.ac.uk