

# Alexander Hambley

Website: [alexhambley.github.io](https://alexhambley.github.io)

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## OVERVIEW

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- **Profile:** As an award-winning Human-Computer Interaction (HCI) researcher at The University of Manchester and Associate Lecturer at the Open University, my PhD research focuses on applying machine learning to optimise accessibility technologies for visually impaired users. Published at some of the leading conferences in Computer Science, including the International World Wide Web Conference, I have produced an unsupervised machine learning approach that clusters web pages by similarity, significantly improving web accessibility evaluation time.
- **Interests:** Human-Computer Interaction, Web Accessibility, AI, Machine Learning, Unsupervised Learning.

## EDUCATION

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- **The University of Manchester** Manchester, UK  
*PhD in Computer Science* January 2020 - Present  
*Thesis title:* Empirical web accessibility evaluation for blind web users.  
*Advised by:* Prof. Simon Harper, Dr. Yeliz Yesilada, Dr. Markel Vigo.
- **The University of Nottingham** Nottingham, UK  
*BSc (Hons) in Computer Science; First Class (76%)* September 2016 - July 2019  
*First-class modules include:* Fundamentals of AI (73%); Software Maintenance (77%); Distributed Systems (71%); Human-Computer Interaction (70%); Software Specification (81%); Software Engineering Group Project (Leader) (90%); Collaboration and Communication Technologies (79%); Mobile Device Programming (78%); Professional Ethics in Computing (78%); Computer Security (73%); Fundamentals of Information Visualisation (81%).  
*Dissertation:* A study of the addictive nature of smartphones and social media (84%).

## EXPERIENCE

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- **The Open University** Manchester, UK  
*Associate Lecturer in Computer Science* September 2022 - Present
  - **Impact:** Demonstrated strong pedagogical skills through effective implementation of distance learning methods, achieving an average student grade of 65% on a challenging course. Demonstrated excellent communication skills, directly contributing course feedback to directors.
- **The University of Manchester** Manchester, UK  
*Graduate Instructor* January 2020 - Present
  - **User Experience:** Marked and moderated coursework for over 150 students. Provided formative and summative feedback.
  - **Database Systems:** Ran laboratory sessions for 30 students at a time. Assessed and moderated coursework for over 50 students. Presented formative and summative feedback.
  - **Introduction to Programming II:** Coordinated focused laboratory sessions. Marked and moderated coursework. Assigned formative and summative feedback. Facilitated group work.
  - **First Year Group Project:** Advised student projects. Provided formative feedback. Facilitated group work.
- **HeX Productions** Nottingham, UK  
*Web Developer (Accessibility)* May 2019 - September 2019
  - **Impact:** Established a successful new technology event in Nottingham. Created a new accessible website for the event. Modified and repaired several existing public sector websites for conformity with WCAG 2.1 AA.
  - Created an accessible e-Learning website and presented to over 30 developers and industry experts talks on accessible web development.

- **Skills:** Developed websites using technologies such as WordPress, Terminalfour, PHP, JavaScript, and CSS. Worked as a full-stack developer with accessibility in mind, developing a practical understanding of WCAG, presenting, public speaking and organising skills.

- **The University of Nottingham** Nottingham, UK  
*IT Support Tutor* *August 2018 - December 2018*

- **Impact:** Advised over 100 students with registration difficulties, timetable problems and student ID concerns.
- **Skills:** Advanced independent and collaborative working skills. Problem solving. Interpersonal skills.

- **The University of Twente (UT)** Enschede, Netherlands  
*Research Software Developer (Intern)* *June 2018 - August 2018*

- **Impact:** Developed prototype social robots at the UT DesignLab to assist children with ASD. Robots would vary facial movements to mimic human faces.
- **Skills:** Demonstrated ability to think critically and to communicate effectively with a diverse group of people. Displayed ability to create rapid, effective, low and high fidelity prototypes.

## AWARDS & HONOURS

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- **Best Communication Paper:** The 19th International Web for All Conference. *(April, 2022)*
- **EPSRC Doctoral Studentship:** Engineering & Physical Sciences Research Council. *(January, 2020 - Present)*

## PROFESSIONAL CERTIFICATES

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- **Accessibility of eLearning:** The Open University *(January, 2023)*
- **Machine Learning:** DeepLearning.AI, Stanford University. Coursera. *(July, 2022)*
- **Designing Effective Science Communication:** University of Colorado Boulder. Coursera. *(June, 2022)*
- **Accessible Documents: Word, PowerPoint, Acrobat:** WebAIM. *(August, 2019)*

## PROFESSIONAL SKILLS

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- **Languages:** Python, PHP, C, C#, Java, JavaScript, Swift, SQL, R, MATLAB
- **Frameworks:** Scikit, Numpy, TensorFlow, Flask, BeautifulSoup, Scrapy, React, LAMP
- **Tools:** Tableau, Docker, GIT, MySQL, SQLite, PHPMyAdmin, Android Studio, XCode
- **Soft Skills:** Research, Software Engineering, Project Management, Writing, Public Speaking, Time Management, Scientific Communication, Leadership, Collaboration

## PROFESSIONAL ACTIVITIES

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- **Organisational Roles** *September 2021 - Present*  
*Publicity Chair*

- **W4A 2022 / 2023:** Refined mailing lists, disseminated calls for papers and ran conference social media channels. Compiled and uploaded video recordings of the conference proceedings. Liaised with authors, organising and steering committee.

- **Peer-Reviewing**

- *Journals*
  - **ACM Transactions on the Web (TWEB):** 2 Reviews in 2022
  - **ACM Transactions on Accessible Computing (TACCESS):** 2021

## PUBLIC ENGAGEMENT

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- **ClickSilver (Capital One)** Nottingham, UK  
*Mentor* *August 2018 - December 2018*

- **Task:** Mentored an older person with memory difficulties in the use of computers.
- **Outcome:** Developed unique ways of teaching complex ideas to someone with memory problems.