

# Tommaso Armstrong

## Current Work

### PhD Researcher in Human-Computer Interaction

2018 — 2025 (expected) University of Technology Sydney

- Designed and ran a multi-study research project exploring how social platform design could be improved to better support the experiences of queer young men.
- Presented research findings to social platform companies as part of invited talks, at ACM conferences, on panels, and to research stakeholders.
- Published findings in first-author papers at peer-reviewed ACM conferences, including DIS and OzCHI, as well as newspaper articles. Further publications in review.
- Conducted semi-structured interviews (in-person and remotely) and used custom-made cultural probe kits to understand the lived experiences of 35 queer young people.
- Analyzed data from 65+ hours of interviews using Atlas.ti with a reflexive thematic analysis approach to generate findings that synthesized participant experiences.
- Organized and facilitated in-person participatory co-design workshops with 13 designers in San Francisco to translate research findings into new concepts for social platform design.
- Prototyped and evaluated 11 new design concepts. Created wireframes then used Figma to develop high-fidelity mockups which were validated in participatory workshops with 15 queer and trans young men.
- Recruited 60+ participants across the project through social media campaigns, including screening candidates to meet research objectives through a custom built Qualtrics survey.
- Sought and received approval from the Human Research Ethics Committee, including amending approvals when research objectives changed.

### Educator — Design Innovation & Interaction Design

2018 — 2025 University of Technology Sydney

- Taught Interaction Design classes at the Bachelors and Masters level. Worked with hundreds of students, coaching them through all stages of design projects, including methodology, conception, desk research, user research, prototyping and testing both usability and UX.
- Led students in the prestigious Bachelor of Creative Intelligence and Innovation through rigorous design innovation processes in response to real-world briefs from industry partners. Guest lectured, facilitated novel teaching approaches at scale, and mentored student groups.
- Worked with students and fellow academics to transition classes online during COVID. Adapted and iterated teaching in response to student feedback and evolving requirements.

### Interaction Designer and Software Developer

2018 — 2025 Freelance

- Designed and developed Rangefinder, an iPad app with SwiftUI that demonstrates how rangefinder cameras work. Users can interact with a virtual rangefinder camera from different perspectives, change lenses, take photos and learn about their functions.
- Designed and developed Bear With, an iOS app with SwiftUI that allows people to share a customizable image of their calendar which hides event details — perfect for someone who wants to share what their week looks like without compromising their privacy.

## Previous Education & Experience

### Bachelor of Science in Information Technology & Bachelor of Creative Intelligence and Innovation

2014 — 2017 University of Technology Sydney

- Graduated with distinction from a highly competitive double degree program.
- One of four students to work on a project for His Excellency, the Governor of New South Wales to visualize his diary. Responsible for data analysis and building visualizations using R and d3. Led a round-table discussion with the Governor and his staff about the project outcomes and their implications.
- Completed an industry capstone with Accenture to develop a proof of concept Zero UI device.

### Software Developer (Internship)

2016 — 2017 Connected Intelligence Centre, University of Technology Sydney

- Developed Learning Analytics Software. Created interactive dashboards for students and staff. Deployed and managed services on AWS cloud infrastructure.

### Software Developer (Internship)

2016 Construction Cloud

- Developed a reporting system. Built image processing pipelines for uploads using Python and AWS Lambda. Helped design architecture for the system using AWS.

## Key Skills

UX research — Conducting interviews, running workshops, qualitative data analysis, creating surveys, using Qualtrics, presenting findings, participant recruitment, using probes, navigating ethical considerations.

Interaction design — Designing user interfaces and experiences, creating low and high fidelity prototypes, using Figma and Sketch, usability testing.

Communication — Presenting work on panels and at conferences, responding to industry briefs, communicating research findings through reports, articles and papers, creating data visualizations.

Collaboration — Working collaboratively, offering design critique, mentoring.

Software development — Proficient in SwiftUI and front-end web technologies.

## Work as a Volunteer

### Volunteer

2023 Qtopia Sydney — Australia's first Queer Museum

- Provided assistance and guidance to visitors at the museum launch and inaugural exhibits.

### Higher Degree Research Student Representative

2020 — 2022 HFESA Human Factors and Ergonomics Society of Australia and School of Computer Science, University of Technology Sydney

- Advocated for research students in the steering committee for Australia's premier HCI conference, OzCHI.
- Championed and developed a new online community for research students at the university which enabled more effective communication channels between students and university management as well as peer support and learning.