www.**Brian.Ma**

Columbia University, School Of Engineering and Applied Science	Fall 2024 – Present

Master of Science (Part-time) Major: <u>Computer Science</u> Thesis Track, Human Computer Interaction

Columbia University, School Of Engineering and Applied Science	Fall 2020 – Spring 2022

Bachelor of Science (3-2 Engineering Combined Plan) Major: <u>Computer Science</u>

Colgate University,	Fall 2017 – Spring 2020

Bachelor of Arts (3-2 Engineering Combined Plan) Major: <u>Physics</u>; Minors: <u>Mathematics</u>, <u>Jewish Studies</u>

Work Experience

Netflix, *UI Engineer*   Fall 2022 - Now

- On a team supporting translators so stories around the world can be told without Cultural, Linguistic, and Accessibility barriers!

Academic Experience

Columbia University, COMS W4170 User Interface Design, *Teaching Assistant*   Fall 2021

- Served as mentor to 16 students, providing guidance and feedback as they worked on an individual design project using the User Centered Design process.
- Guided students as they performed Contextual Inquiries, Storyboarding, Rapid Prototyping, and Study Design.
- Assisted students in learning design software such as Basalmiq and Figma, as well as web technologies such as HTML/CSS/Javascript.
- Answered student questions and provided advice at office hours and online and graded bi-weekly homework assignments.

Columbia University, (HCI) Computer-Enabled Abilities Laboratory, *Research Assistant*   Fall 2020 – Summer 2021

- Conducted research with Prof. Brian Smith on techniques to enable blind accessibility in video games.
- Helped implement a new blind-enabled interaction method in Unity based on joystick-controlled ray casting.
- Designed and performed numerous user studies with visually impaired gamers. Performed analysis and participated in written presentation of results.
- Second author on two resulting publications, one presented at UIST and the other currently under review at CHI.

Tsinghua University, **X-Studio HCI Lab**, *Research Intern*   Fall 2016 – Summer 2017, Winter 2017

- Collaborated with graduate students to build interactive device that tracks input on a surface using temperature changes and a game based on the device. Implemented particle system, parts of input detection and game logic, and Arduino code for haptic tools. Used C++ OpenFrameworks library, XBee wireless communication, and various sensors for the haptic tools.
- Participated in numerous other projects. Edited 10+ papers in support of publication efforts and participated in the design of user studies.

Publications

- **Mul-O: Encouraging Olfactory Innovation in Various Scenarios Through a Task-Oriented Development Platform.**

  Gao P., Liu F., Wen D., Gao Y., Zhang L., Wang C., Zhang Q., Zhang Y., **Ma S.**, Lu Q., Mi H., Xu Y.**.** In **UIST '24**: Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology

- **Atmospheror: Towards an Olfactory Interactive System for Enhancing Social Presence and Interaction in Synchronous Online Classes.**

  Lu Q., Zhang Y., Zhang Y., **Ma S.**, Zhang Y., Qin Y., Gao P., Zhang Q., Xu Y.**.** In **CHI EA '23:** Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems

- **Uncovering Visually Impaired Gamers' Preferences for Spatial Awareness Tools Within Video Games.**

  Nair, V., **Ma, S.**, Gonzalez R., He Y., Lin K., Hayes M., Huddleston H., Donnelly M., Smith, B**.** In **ASSETS '22**: Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility

- **Towards a Generalized Acoustic Minimap for Visually Impaired Gamers**.

  Nair, V., **Ma, S.**, Huddleston, H., Lin K., Hayes M., Donnelly M., Gonzalez R., He Y., Smith B. (2021)**.** In **UIST '21**: The Adjunct Publication of the 34th Annual ACM Symposium on User Interface Software and Technology

- **IRelics: Designing a Tangible Interaction Platform for the Popularization of Field Archaeology**.

  Lu Q., **Ma S.,** Xu Y., Li J. (2019). In Proceedings of **TEI '19**: ACM International Conference on Tangible, Embedded and Embodied Interaction.

Volunteer Experience

- **Humane Society Silicon Valley** Trained Kitten Socializer and Ringworm Treatment Assistant
- **Second Harvest Food Bank Silicon Valley** Food Packing
- Other one-off volunteer opportunities: Lifeforce in Later Years (NYC), Sacred Heart Community Service (San Jose)