

CURRICULUM VITAE
ELLIOT HU-AU
DOCTORAL CANDIDATE
TEACHERS COLLEGE, COLUMBIA UNIVERSITY

PROFESSIONAL SUMMARY

A dedicated and passionate educator with veteran teaching experience at many levels within education. A published researcher in educational technology who explores novel methods for learning by experimenting with new technologies. An experienced mixed reality creator who has brought apps to the publishing stage (*Meta App Lab*). A thoughtful professional who is aware of social and cultural institutions, histories, and the effects they have on individuals.

ACADEMIC RECORD

Educational Doctorate, 2023
Instructional Technology and Media
Teachers College, Columbia University
New York, New York

Master of Arts, 2017
Instructional Technology and Media
Teachers College, Columbia University
New York, New York

California Single-Subject Teaching Credential, 2005
Physics and Introductory Math
California State University, East Bay
Hayward, California

Bachelor of Arts, 2003
Astrophysics with an Education Minor
University of California, Berkeley
Berkeley, California

TEACHING EXPERIENCE

Teachers College, Columbia University Instructor – “VR, AR, MR and Games as Learning Tools”, “Development of XR and Games”, and “Theory and Programming of Interactive Media I” Designed and created a class for the Communications, Media, and Learning Technologies Design Department. Syllabi based on new technological developments, created overall course structure, and administered all grades	Spring 2018-2023
Rikers Education Program, Rikers Island, NY Teacher – “Game Design” Developed game design and self-reflection course structure for incarcerated male teenagers using text-based game engine (Twine)	Fall 2017
Teachers College Community School, New York, NY After-School Program Teacher – “Game Design” Developed syllabus, overall course structure, and implemented curriculum for 4th graders using GameStar Mechanic.	Fall 2016
REALM Charter School, Berkeley, CA Physics Teacher – 9th Grade Founded a new hands-on science program built upon systems thinking and conceptual physics. Developed syllabus, overall course structure, wrote grants and administered all grades. Served as Head of Science Department from 2011-2015.	2011-2015

Berkeley Technology Academy, Berkeley, CA **2010-2011**
Physics and Algebra Teacher – 11-12th Grades
 Developed syllabi, overall course structure, wrote grants, and administered all grades at a public continuation high school. Gained knowledge of serving at-risk and non-traditional youth in the school setting.

Skyline High School, Oakland, CA **2005-2010**
Earth Science and Physics Teacher – 9-12th Grades
 Developed syllabi, wrote grants, overall course structure, and administered all grades. Served as Faculty Council President from 2008-2010.

PROFESSIONAL EXPERIENCE

HAE Studios – New York, NY **2021-current**
Founder, Lead Designer and Developer
 Independently designed, developed, and published a VR chemistry lab simulation for the Oculus App Lab. Averages ~20 copies sold/month

DREAMS Initiative – Teachers College, Columbia University **Fall 2022-current**
VR App and Lesson Developer
 Led VR app developers group in constructing educational experiences and lesson plans for local middle schools. Planned local teacher professional development on using VR lessons in schools

The Game Research Lab, Teachers College, Columbia University, New York, NY **2016 – 2022**
Graduate Assistant
 Coordinate programs and volunteers, maintain equipment and lab procedures, mentor and assist students in the design and development of games

American Museum of Natural History, New York, NY **Spring 2017**
Evaluation Intern
 Evaluated, designed, and implemented user experience/user interfaces for new learning technologies across different scientific subjects. Implemented and evaluated many customer-facing user experience tools in the museum.

Teacher Tinker Bootcamp – Teachers College, Columbia University **Aug 2016**
Virtual Reality Expert
 Designed and implemented 3-day professional development on VR to local teachers

Center for Technology and School Change, New York, NY **Fall 2015**
Professional Development Intern
 Designed and implemented professional development workshops for domestic and international teachers

PUBLICATIONS AND PAPERS

Hu-Au, E., Addla, P., Harinarayanan, J. Wei, Z., Wu, C., Liu, Z. Y., Danoff, M. (in press). **Dec 2022**
Novel Behaviors of Youth in a Virtual Reality Chemistry Lab. Proceedings of the 2023 9th International Conference of the Immersive Learning Research Network. Online and San Luis Obispo, USA, May 18-20, June 26-29, 2023. Immersive Learning Research Network.

- Hu-Au, E. & Okita, S. (2021).** *Exploring Differences in Student Learning and Behavior Between Real-life and Virtual Reality Chemistry Laboratories.* Journal of Science Education & Technology, 1-15. <https://doi.org/10.1007/s10956-021-09925-0> **June 2021**
- Lee, J. J. & **Hu-Au, E. (2021).** *E3XR: An Analytical Framework for Ethical, Educational and Eudaimonic XR Design.* Frontiers in Virtual Reality. <https://doi.org/10.3389/frvir.2021.697667> **June 2021**
- Hu-Au, E. & Okita, S. (2020, June 19-23).** *Exploring Differences in Student Learning and Behavior between Real-Life and Virtual Reality Chemistry Laboratory Experiments. The International Conference of the Learning Sciences, Nashville, TN.* <https://icls2020.org/> **June 2020**
- Hu-Au, E. & Lee, J. J. (2017).** *Virtual Reality and Education: A Tool for the Experience Age.* International Journal for Innovation in Education, 4(4), 215-226. **2017**
- Virtual Reality for Education Website – www.virtualrealityforeducation.com** **2016-2023**
Highlighting VR research in education and possibilities for K-12 use

PRESENTATIONS

- Novel Behaviors of Youth in a Virtual Reality Chemistry Lab* **June 2023**
Immersive Learning and Research Network Conference 2023
- Exploring Differences in Student Learning and Behavior between Real-Life and Virtual Reality Chemistry Laboratory Experiments* **April 2020**
AERA 2020 Poster Presentation

PORTFOLIO

<http://ehuaa.my.canva.site>

Examples of my work in virtual reality, augmented reality, 3D modeling and printing. Work done by my students is also included.

COMMERCIAL APPLICATIONS

- The VR Chemistry Lab – Meta App Lab* – Independently designed, developed, and successfully published a VR app for simulating science laboratory experiences and interacting with the microscopic world (400+ downloads) **Nov 2021**

AWARDS

- The Campbell Award** **2023**
A recognition by the University Trustees and the Board of the Columbia Alumni Association for exceptional leadership and Columbia spirit. Awarded to a single graduate at each School associated with Columbia University.
- Shirley Chisholm Trailblazer Award** **2022**
Annual award given to a Teachers College student who makes a significant contribution to school culture. Recognized for involvement with multiple clubs and for presentations to the TC Board of Trustees on behalf of student-parents and educational technology

Ben and Grace Wood Fellowship, Teachers College

3-year annual \$25,000 scholarship awarded to new doctoral student each year

2017-2020**Louis Gerstner, Jr. Educational Scholarship**

Annual award given to an outstanding student in the CMLTD department at TC

2016

MANUSCRIPT REVIEWER

BioScience

Interaction Design and Children conference

Canadian Journal of Science, Mathematics, and Technology

Education

May 2019**2021-2022****February 2022**

RELATED SKILLS

3D Printing – Layer Deposition and Resin Tank Machines

3D Modeling – proficient with Autodesk Fusion 360, Sketchfab, Meshmixer

C# Programming – Advanced

HTML, CSS, Javascript - Intermediate

Unity3D - fluent