ELIZABETH H. CHILDS

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EDUCATION

STANFORD UNIVERSITY   Stanford, CA
Doctor of Philosophy in Human Computer Interaction   Expected May 2027
Knight Hennessy Scholar (*Three Year Stanford Leadership Fellowship*)
Impact Labs PhD Fellowship (*Fellowship for solutions-oriented research*)

STANFORD UNIVERSITY   Stanford, CA
Masters of Arts in Education   Expected May 2025

UNIVERSITY OF MARYLAND, COLLEGE PARK   College Park, MD
BS Mechanical Engineering | Entrepreneurship and Innovation Honors Program   Aug 2016 – Dec 2020
GPA (*Cumulative*): 3.98/4.00
Banneker Key Scholar (*Full Scholarship to the University of Maryland*)

RESEARCH EXPERIENCE

STANFORD UNIVERSITY   Stanford, CA
Interaction and Design Lab and *CHARM Lab*   June 2021 – Present
Advisor: Prof. James Landay and Prof. Allison Okamura
- Augmented Reality for Democratizing Education

UNIVERSITY OF MARYLAND, COLLEGE PARK   College Park, MD
Geometric Algorithms for Modeling, Motion, and Animation Laboratory   Aug 2020 – Aug 2021
Advisor: Prof. Dinesh Manocha
- Telepresence in Virtual Reality

Bioinspired Advanced Manufacturing (BAM) Laboratory   Sept 2018 – July 2020
Advisor: Prof. Ryan D. Sochol
- Additive Folding of PolyJet 3D Printed Components for Microfluidic Applications

INSTITUTE OF TECHNOLOGY OF CAMBODIA & VILLANOVA UNIVERSITY   Phnom Phenh, Cambodia
International Research Experience for Students, Cambodia   June 2019 – Aug 2019
Sponsor: National Science Foundation | Advisor: Prof. Garrett Clayton
- Modular Robotics for Explosive Ordnance Disposal in Cambodia

OREGON STATE UNIVERSITY, CORVALLIS   Corvallis, OR
Dynamic Robotics Laboratory   June 2018 – Aug 2018
Sponsor: National Science Foundation | Advisor: Prof. Jonathan Hurst
- Impact Absorption in Dynamic Walking Robots

UNIVERSITY OF MARYLAND, COLLEGE PARK   College Park, MD
Robotics Realization Lab   Jan 2017 – May 2018
Advisor: Prof. Sarah Bergbreiter
- Soft Robotics to Model the Human Hand

JOURNAL PUBLICATIONS

1. **E.H. Childs**, A.V. Latchman, and R.D. Sochol *et. al.*, "*Additive Assembly for PolyJet-Based Multi-Material 3D Printed Microfluidics*," **Journal of Microelectromechanical Systems**.
2. **E. Childs**,[*] F. Mohammad,[*] L. Stevens[*] and D. Manocha *et al.,* "*An Overview of Enhancing Distance Learning Through Augmented and Virtual Reality Technologies*," **IEEE Transactions of Visualization and Computer Graphics.** [*]These authors contributed equally; listed alphabetically

CONFERENCE PUBLICATIONS

1. A. Cheng, J. Ritchie, N. Agrawal, **E. Childs**, C. DeVeaux, Y. Jee, T. Leon, B. Maples, A. Cuadra, and J. Landay *"Designing Immersive, Narrative-Based Interfaces to Guide Outdoor Learning"* **Human Computer Interaction Conference (ACM CHI)** 2023

2. U. Bhattacharya, **E. Childs**, and D. Manocha *et al.,"Speech2AffectiveGestures: Synthesizing Co-Speech Gestures with Generative Adversarial Affective Expression Learning,"* **ACM International Conference on Multimedia (ACMMM)**, 2021

PRESENTATIONS / PANELS

AUGMENTED WORLD EXPO	Longbeach, CA
Panelist, The Educational Rift in Spatial Reasoning	June 2024
STANFORD XR CONFERENCE	Stanford, CA
Panel Moderator, XR in Education	May 2023
Demonstration, Mobile AR Learning	May 2022

HONORS AND AWARDS

- NSF LSAMP Bridge Scholar
- Academic Achievement Award for highest GPA in Mechanical Engineering
- MIT Reality Hack: 1st Place: Best Use of Looking Glass

ADDITIONAL ENGINEERING EXPERIENCE

DOLBY LABORATORIES	Sunnyvale, CA
Researcher, Advanced Technology Group	May 2024 – Aug 2024

- Investigated immersive technology for learning

LAM RESEARCH CORPORATION	Fremont, CA
Mechanical Engineer, Global Products Engineering	May 2021 – Aug 2021

- Designed HoloLens applications for visualizing industrial robots
- Created UX applications to visualize and diagnose robot errors.

UNIVERSITY OF MARYLAND, COLLEGE PARK	College Park, MD
Bioinspired Robotics	Feb 2019 – May 2019

- Designed robot inspired by summersaulting Moroccan Spider

KEY TECHNOLOGIES, INC	Baltimore, MD
Mechanical Engineer, *Medical Technology Engineering Consulting*	Sept 2019 – Dec 2019

- Designed, manufactured, and tested for consumer products and medical devices

UNIVERSITY OF MARYLAND, COLLEGE PARK	College Park, MD
Consultant, *Quality Enhancement Systems and Teams (Quest)*	Oct 2018 – Dec 2018
Sponsor: Unites States African Development Foundation (USADF)	

- Consulted for farming cooperative startup in the DRCmedical devices

TECHNICAL SKILLS

- **Engineering Software:** SolidWorks | Arduino Programming | MATLAB | Engineering Equation Solver | C++ | Processing | Creo | NX | Maya | Microsoft Office | Unity | D3
- **Manufacturing:** FDM 3D Printing | Dremel | Belt Sander | Band Saw | Jigsaw | Laser Cutter | Stratasys Objet500 Connex3 (Polyjet 3D Printing) | PDMS (Silicone) Molding