Elizabeth Meiklejohn

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Experience

University of Colorado Boulder, Boulder, CO
Experimental Weaver-in-Residence, 2023-present
Initiated collaborative textile design and engineering projects as visiting researcher at Unstable Design Lab.

Rhode Island School of Design, Providence, RI
Research Assistant, Virtual Textiles Research Group, 2021-2023
Created fabric samples and full-scale designs using a custom-built software tool for simulating 3D wovens.
Assistant Manager, Co-Works Research Lab, 2022-2023
Led initiatives in computer-aided textile fabrication.
Graduate Peer Tutor, Co-Works Research Lab, 2020-2022
Trained team members in textiles and prototyping.

Massachusetts Institute of Technology, Cambridge, MA
Teaching Assistant, Computing Fabrics 3.173, 2021-2022
Developed fiber science and textile design curriculum.
Research Intern, Fibers Group, 2021
Designed, fabricated and tested woven acoustic fabrics.

Visible Futures Lab at **School of Visual Arts**, New York, NY
Researcher, 2020-2021
Created open-source library for 3D mesh processing.
Manager, 2019-2020
Implemented best practices for lab operations and growth. Led research in creative digital fabrication.
Prototyping Specialist, 2019
Consulted on soft goods, CNC milling and 3D printing.
Lab Assistant, 2018-2019
Maintained equipment and led prototyping workshops.

Open Style Lab, New York, NY
Design Fellow, 2019
Designed, pitched and produced small run of toolkits to make fashion more accessible for people with disabilities.

Autodesk, San Francisco, CA
Pier 9 Resident, 2016-2018
Designed and produced a suite of concept garments for Levi Strauss & Co. with digital fabrication methods.

Levi Strauss & Co., San Francisco, CA
Assistant Innovation Designer, 2015-2018
Researched sustainable materials, created seasonal product stories and menswear designs, ideated future concepts based on trend and technology forecasts.
Assistant Designer, Men's Knits and Sweaters, 2014-2015
Created sketches, managed BOMs, assisted with proto reviews, fittings, and fabric and trim development.

Education

Rhode Island School of Design
MFA Textiles, 2022
Specialized in Jacquard design and 3D weaving.
BFA Apparel Design, 2014
Specialized in womenswear and tailored wovens.

Publications

Feeling Fabrics: Prototyping Sensory Experiences with Textiles and Digital Materials (forthcoming)
Meiklejohn, E. et al. EKSIG Conference 2023.

Woven Behavior and Ornamentation: Simulation-Assisted Design and Application of Self-Shaping Woven Textiles
Meiklejohn, E. et al. 2022. *Proceedings of the ACM on Computer Graphics and Interactive Techniques* Vol. 5.

Single fibre enables acoustic fabrics via nanometre-scale vibrations
Yan, W. et al. 2022. *Nature* Vol. 603.

Rapid Sketching of Woven Textile Behavior: The Experimental Use of Parametric Modeling and Interactive Simulation in the Weaving Process
Meiklejohn, E., Hagan, B., Ko, J. 2022. *Computer-Aided Design* Vol. 149.

Hack-Ability: Using Co-Design to Develop an Accessible Toolkit for Adding Pockets to Garments
Jones, L. et al. Participatory Design Conference 2020.

Skills

Apparel and soft goods design, patternmaking, construction and fitting
Woven fabric design and drafting, including Jacquard, dobby, 3D woven and multi-layer structures
Operation of Stäubli and Tronrud TC-2 jacquard looms
3D printing, CNC milling, prototyping and sampling within precise specifications and tolerances
Expertise in textile fibers and yarns, high-performance and sustainable materials, industry testing standards
Passionate about technological and environmental breakthroughs in the apparel and textile industries
Strong verbal, visual and written communication skills
Adobe Creative Suite, Microsoft Office, PLM
Rhinoceros, Grasshopper, Fusion360, CLO3D, Python