# Sujin(Joanna) Yoo

Master's Student · Apparel Design / Computer Science

*Ithaca, NY*

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## Education

**Cornell University** *Ithaca, NY*

M.A. Apparel Design with a Minor in Computer Science *Aug.2024 - May.2026 (Expected)*

- Advisors: Dr. Fatma Baytar (chair), Dr. Steve Marschner (minor committee)

**University of Southern California (USC)** *Los Angeles, CA*

B.S. Computer Science and Business Administration *Aug.2021 - May.2024*

- Combined Bachelor of Science degree program

**Los Angeles Trade-Technical College** *Los Angeles, CA*

A.S. Mathematics *Jan.2019 - May.2021*

- Earned concurrently with full-time employment

**Fashion Institute of Design and Merchandising (FIDM)** *Los Angeles, CA*

A.A. Fashion Design *Mar.2015 - Jun.2017*

## Research Projects

**Recommendation System for Maximizing Scrap-Fabric Utilization in Home Sewing** *Cornell University*

Advised by Dr. Fatma Baytar and Dr. Steve Marschner (Independent Project) *Ongoing*

- Designing a recommendation system that analyzes scrap fabric images to suggest projects and maximize creative use for home sewers

**Physics-Based Modeling of Bulk Seam Types for Accurate Digital Garment Fit** *Cornell University*

Advised by Dr. Fatma Baytar and Dr. Steve Marschner (Independent Project) *Ongoing*

- Developing a physics-based model of bulk seam constructions to achieve more realistic digital garment drape and fit in virtual garment simulation environments

**Interactive Size-Chart and Automated Pattern Adjustment System for Home Sewers** *Cornell University*

Advised by Dr. Fatma Baytar and Dr. Steve Marschner (Master's Thesis) *Ongoing*

- Developing a 3D interactive size-chart and automated pattern adjustment tool integrated with CLO3D to help home sewers with non-standard body types
- Awarded Alan D. Mathios Research and Service Grant, Cornell University ($1,000)
- 1st Place – HCD Graduate Student Poster Contest, Cornell University ($250)

**Posture Descriptors (PARCS): Improving Posture Analysis for Garment Fit** *Cornell University*

Cornell Fashion & Body Tech Lab *2025*

- Assisted with 3D body scanning, pose estimation, and data preparation

**Developing Inclusive Swim Cap Design Using 3D Body Scanning** *Cornell University*

Cornell Fashion & Body Tech Lab *2024*

- Assisted with 3D body scanning and used Geomagic software to clean, process, and analyze head-shape data

## Teaching Experience

2025 **DEA 1140:Principles of Design Computing**, Graduate Student Lecturer, Cornell University
2025 **FSAD 1450: Introduction to Fashion Design**, Teaching Assistant, Cornell University
2024 **FSAD 1450: Introduction to Fashion Design**, Teaching Assistant, Cornell University
2024 **Integration of Artificial Intelligence in the Fashion Industry**, Guest Lecturer, StyleCAD USA
2022-2024 **Software Programming Instructor**, iANT Education, Los Angeles, CA

## Professional Experience

2024-ing **Creative Director**, Joanna Blüm Studio
2022-2024 **Freelance Technical Designer**, Beautiful Day Wedding
2023 **Freelance Technical Designer**, Brochu Walker
2021-2022 **Freelance Senior Fashion Designer**, Ginger Green
2021 **Senior Fashion Designer**, Mystree
2018-2021 **Associate Fashion Designer**, Papermoon Clothing
2017-2018 **Associate Fashion Designer**, Oh Yes Fashion
2016-2017 **Assistant Fashion Designer**, Aime
2015-2016 **Graphic/Apparel Designer**, Young 2 Dress

## Peer-Reviewed Conference Proceedings

Baytar, F., Yang, Y., Maher, M., Rivera, I., **Yoo, S.**, Patel, S. (2025). Implementing 3D body scanning methods for inclusive swim cap design and sizing. HCII 2025, Springer LNCS 15792. `https://doi.org/10.1007/978-3-031-93505-3_1`

McDonald, C.*; Ruderman, G.; Carmicino, B.; Bayter, F.; Navodhya, P.U.; Maher, M.; **Yoo, S.**. Posture Descriptors (PARCS): What We Know and the Gaps. In Proceedings of 3DBODY.TECH 2025 (Accepted, forthcoming)

## Awards, Fellowships, & Grants

2025 **Recipient, Oris Glisson Fellowship**, International Textile & Apparel Association *$ 1,000*
2025 **1st Place, HCD Graduate Student Poster Contest**, Cornell University *$ 250*
2024 **Recipient, Alan D. Mathios Research and Service Grant**, Cornell University *$ 1,000*
2023 **Outstanding Team Project Award (Android App)**, University of Southern California

## Relevant Coursework

**Cornell University:**

**CS5620** Intro to Computer Graphics, **CS5643** Physical Based Animation for Computer Graphics, **CS5621** Computer Graphics Practicum, **MATH4520** Classical Geometries and Modern Applications, **FSAD6025** Design for Change, **FSAD3650** New Technologies for Fashion Design

**Other Institutions:**

- Completed full lower-division mathematics sequence (Calculus I–III, Linear Algebra, Differential Equations)
- Completed core undergraduate computer science courses (Data Structures, Algorithms, Discrete Mathematics, Artificial Intelligence, etc.)

## Skills

- C++, C#, Python, Java, TaichiLang, PyQt, Unity, OpenGL, OpenCV, Blender, Geomagic, Qt, CLO3D, Browzwear, Illustrator, Latex, GitHub
- Amazon Web Services(AWS) Certified Cloud Practitioner, Certificate Verification Number: CT40GH217J44Q1KF
- Oracle Certified Associate, Java SE 8 Programmer, Certificate Verification Number: 20425079OCAJSE8