

Ha Eun Chae

Instructor

Fashion Merchandising and Design, Virginia Tech

Ph.D. Candidate

Apparel, Merchandising, and Design, Iowa State University

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LinkedIn

Personal Portfolio

Education

Doctor of Philosophy (Ph.D.) in Apparel, Merchandising, and Design

Expected May 2026

Iowa State University (ISU), Ames, IA

- Emphasis: Sustainable and functional soft-goods product development
- Dissertation: Advancing Healthcare Sustainability: Optimizing Reusable Isolation Gown Design
- Advisors: Drs. Rachel Eike and Ling Zhang

Master of Science (M.S.) in Clothing and Textiles

Aug 2020

Yonsei University, Seoul, South Korea

- Emphasis: Smart clothing design and sustainable apparel design
- Thesis: Study on Consumer Characteristics Based on the Purchase Experience of Upcycling Fashion Products
- Advisor: Dr. Joo Hyeon Lee

Bachelor of Science (B.S.) in Clothing and Textiles

Feb 2018

Kyung Hee University, Seoul, South Korea

- Emphasis: Creative fashion design

Areas of Interest

- Sustainable Apparel Design: circular design, design for disassembly, zero-waste design
- Functional Apparel Design: adaptive apparel design, inclusive apparel design
- Personal Protective Equipment (PPE): medical PPE design

Appointments

Instructor (Full-time)

2025 – Present

Fashion Merchandising and Design program, School of Design, College of Architecture, Arts, and Design, Virginia Tech, Blacksburg, VA

- Taught undergraduate studio and lecture courses in fashion illustration, apparel construction and assembly, fashion promotion, and visual merchandising.
- Oversaw the sewing lab, maintaining a safe working environment and monitoring sewing machine operation.

- Provided service to the program and department through student mentoring, student club support, participation in departmental and program initiatives, and contribution to curriculum development.

Research Experiences

Graduate Research Assistant

2023 – 2025

Apparel, Merchandising, and Design program, Iowa State University

- **Project Title:** Improvement of personal protective equipment (PPE) for healthcare workers
- **Funding Institution:** Centers for Disease Control and Prevention – National Institute for Occupational Safety and Health (CDC – NIOSH)
- **Co-Principal Investigators:** Drs. Guowen Song, Rachel Eike, and Li-shan Chou
- **Semesters Assisted:** FA 2023 / SP 2024 / SU 2024 / FA 2024 / SP 2025 / FA 2025
- Conducted a comprehensive literature review and market analysis on isolation gowns.
- Developed a comprehensive literature review paper on the design, evaluation, and optimization of isolation gown advancement. (*Manuscript in Preparation*)
- Led and analyzed focus group interviews with healthcare workers to gather critical insights. (*Manuscript in Preparation*)
- Led and analyzed the range of motion (ROM) analysis of isolation gowns. (*Manuscript in Preparation*)
- Developed prototypes for reusable isolation gowns utilizing 3D fashion design software, CLO 3D.

Graduate Research Assistant

2019 – 2020

Department of Clothing and Textiles, Yonsei University

- **Project Title:** Development of prototype designs using the innovative closure system for backpacks, hats, and gloves
- **Funding Institution:** Korea Technology and Information Promotion Agency for SMEs (Government-affiliated Public Institution)
- **Co-Principal Investigators:** Drs. Joo Hyeon Lee and Sug-Whan Kim
- **Semester Assisted:** SP 2019 / FA 2019
- Conducted market analysis on apparel products incorporating a string adjustment mechanism.
- Developed commercial designs of sportswear and kidswear, integrating an innovative string adjustment system.

Peer-Reviewed Publications

Journal Publication

Kim, H. J., **Chae, H.**, & Lee, J. H. (2019). Qualitative research of single-person household for a wearable healthcare system providing ischemic heart disease information and a cardiac arrest alarm: Focusing on unmarried workers in their 30s. *Journal of Digital Convergence*, 17(3), 235-251. <https://doi.org/10.14400/JDC.2019.17.3.235>

Teaching Case Study Publication

Schumm, C., **Chae, H.**, & Choi, K. (2024). *Exploring design for disassembly: Circular fashion strategies for a sustainable future*. In L. Davis-Burns (Ed.), *Bloomsbury Fashion Business Cases*. Bloomsbury Fashion Central. <https://doi.org/10.5040/9781350883598.006>

Manuscripts Under Review

Hashemian, B. E., **Chae, H.**, Weible, L. J., Hossain, M. J., & Ortiz-Pellot, A. I. (Under Review – 2nd Round). Comparative analysis of environmentally conscious fiber blends in yoga leggings: Exploring comfort and performance factors. *Clothing and Textiles Research Journal*. Manuscript ID: CTRJ-24-343.

Zhang, L., **Chae, H.**, & Lee, H. (Under Review – 1st Round). Optimizing critique methods for Generation Z in apparel design studios through Myers-Briggs Type Indicator (MBTI) profiles and social cognitive theory. *Fashion Practice*. Manuscript ID: 241965168.

Manuscripts in Progress

Chae, H., Li, R., Eike, R., Zhang, M., & Song, G. (Data analysis completed). *Informing Isolation Gown Redesign: Insights from Healthcare Workers*. Target Journal: *American Journal of Infection Control*.

Chae, H., Li, R., Eike, R., Zhang, M., & Song, G. (Data analysis completed). *Advancing Isolation Gown: A Literature Review and Iterative Approach to Design, Evaluation, and Optimization*. Target Journal: *American Journal of Infection Control*.

Chae, H., Li, R., Eike, R., Zhang, M., & Song, G. (Data analysis in progress). *Range of Motion Analysis of Healthcare Workers in Isolation Gowns: Design Implications*. Target Journal: *Applied Ergonomics*

Chae, H. & Zhang, L. (Data collection in progress). *Towards a Sustainable Future: A Design Framework for Cultural Wearable Art*. Target Journal: *Clothing and Textiles Research Journal*.

Peer-Reviewed Presentations

▣ = Denotes oral presentation

■ = Denotes poster presentation

Chae, H., Li, J., Li, R., Zhang, M., Eike, R., & Song, G. (2025, November 18-22). *A Pilot Study on Enhancing Isolation Gown Design Through Range of Motion Analysis and User-Centered Insights* [Conference presentation]. 2025 Annual International Textile and Apparel Association Conference. St Louis, Missouri, USA. ■

Zhang, L., **Chae, H.**, & Lee, H. (2025, November 18-22). *Enhancing Feedback Precision: Optimizing Critique Methods for Generation Z in Apparel Design Studios through Myers-Briggs Type Indicator (MBTI) Profiles and Social Cognitive Theory* [Conference presentation]. 2025 Annual International Textile and Apparel Association Conference. St Louis, Missouri, USA. ■

Chae, H., Li, R., Eike, R., & Song, G. (2024, November 19-23). *Advancing isolation gown design: Addressing challenges and proposing innovations for healthcare worker safety* [Conference presentation]. 2024 Annual International Textile and Apparel Association Conference. Long Beach, California, USA. ▣

- Chae, H.**, Li, R., Eike, R., & Song, G. (2024, November 19-23). *Exploring healthcare workers' perspectives on isolation gowns: A pilot study* [Conference presentation]. 2024 Annual International Textile and Apparel Association Conference. Long Beach, California, USA. ■
- Chae, H.** & Zhang, L. (2024, November 19-23). *A sustainable framework for cultural wearable art design: The ZCWAP model* [Conference presentation]. 2024 Annual International Textile and Apparel Association Conference. Long Beach, California, USA. ■
- Hashemian, B. E., **Chae, H.**, Weible, L. J., Hossain, M. J., & Ortiz-Pellot, A. I. (2024, November 19-23). *Comparative analysis of environmentally conscious fiber blends in yoga leggings: Exploring comfort and performance factors* [Conference presentation]. 2024 Annual International Textile and Apparel Association Conference. Long Beach, California, USA. ■
- Chae, H.** & Lee, J. (2023, November 8-11). *A qualitative study into consumers' perceptions of upcycling fashion* [Conference presentation]. 2023 Annual International Textile and Apparel Association Conference. Baltimore, Maryland, USA. ■
- Park, S., **Chae, H.**, & Lee, J. (2019, August 21-23). *Design and implementation of optical fiber sensor-based knee protector-shaped wearable for human motion monitoring* [Conference presentation]. The Fiber Society 2019 Spring Conference. Hong Kong. ■
- Park, S., **Chae, H.**, Oh, S., Song, J., & Lee, J. (2019, May 31-June 1). *A study on the planning of contents interlocked with smart fitness wear by user's lifestyle* [Conference presentation]. Annual Spring Conference of Korean Society for Emotion and Sensibility. Yeosu, South Korea. ■
- Hwang, S., **Chae, H.**, & Lee, J. (2019, May 31-June 1). *Research on movement-monitoring clothing to support knee joint rehabilitation exercise for elite player* [Conference presentation]. Annual Spring Conference of Korean Society for Emotion and Sensibility. Yeosu, South Korea. ■
- * Outstanding Thesis Award (Poster Session)**
- Chae, H.** & Chun, J. (2019, May 18). *Surface pattern design employing Nordic motives: Focusing on Scandinavian design characteristics* [Conference presentation]. Annual Spring Conference of The Society of Fashion and Textile Industry. Daegu, South Korea. ■
- Ban, H., **Chae, H.**, & Lee, J. (2018, November 8-9). *Research on planning direction of the smart sportswear to support walking exercise for the baby boomer group* [Conference presentation]. Annual Fall Conference of Korean Society for Emotion and Sensibility. Ilsan, South Korea. ■
- Kim, H., **Chae, H.**, & Lee, J. (2018, November 8-9). *A study of the demand of single-person household for a wearable healthcare system that provides cardiovascular disease and cardiac arrest alarm* [Conference presentation]. Annual Fall Conference of Korean Society for Emotion and Sensibility. Ilsan, South Korea. ■
- Park, S., **Chae, H.**, & Lee, J. (2018, June 14-15). *A study on the potential demands related to home-training characteristics* [Conference presentation]. 2018 Annual Spring Conference of Korean Society for Emotion and Sensibility. Seoul, South Korea. ■

Design Scholarships

Juried Exhibitions

- Chae, H.** (2024, November 19-23). *New moon, new phase* [Design exhibition]. 2024 Annual International Textile and Apparel Association Conference. Long Beach, CA, USA. Mentor: Dr. Ling Zhang.

Chae, H. (2024, June 23-38). *Hidden treasure* [Design exhibition]. XXV World Congress of the International Federation for Home Economics. Galway, Ireland. Mentor: Dr. Ling Zhang.

Chae, H. (2024, June 23-38). *Journey to kinetic art* [Design exhibition]. XXV World Congress of the International Federation for Home Economics. Galway, Ireland. Mentor: Dr. Ling Zhang.

Chae, H. (2022, October 26-29). *Toxophilite* [Design exhibition]. 2022 Annual International Textile and Apparel Association Conference. Denver, CO, USA. Mentor: Dr. Rachel Eike.

Chae, H. (2022, October 26-29). *Minimal to zero* [Design exhibition]. 2022 Annual International Textile and Apparel Association Conference. Denver, CO, USA. Mentor: Dr. Ling Zhang.

*** *University of Fashion - Sustainability Award***

Chae, H. & Yang, H. (2019, October 19). *Kaleidoscope* [Design exhibition]. Annual Fall Conference of Korean Society for Clothing and Textiles. Seoul, South Korea.

*** *Fashion Product Design Contest Award***

Non-juried Exhibitions

Chae, H. (2025, February 24-25). *Hidden Treasure* [Design exhibition]. 2025 Iowa State University Symposium on Sustainability. Ames, IA, USA.

Chae, H. & Park, J. (2016, December 27). *Capstone design project: Jardin de Tasha* [Design exhibition]. Kyung Hee University. Seoul, South Korea.

Chae, H. (2016, May 27). *Remind and Rewind* [Design exhibition]. Kyung Hee University 36th Graduation Fashion Show. Seoul, South Korea.

Teaching Experiences

Instructor (Full-time)

Fashion Presentation Techniques (FMD 2224)

2025 – Present

Fashion Merchandising and Design program, Virginia Tech

- **Course Level:** Core undergraduate-level course
- **Class Enrollment:** 21
- **Semester Taught:** FA 2025
- **Course Description:** Explores the principles and methods of fashion illustration, focusing on proportions, design details, and fabric renderings. Students develop skills in both manual and digital techniques, applying industry terminology to create technical flat drawings. The course emphasizes creative communication using diverse media.
- **Course Responsibility:** Developed curriculum and instructional materials; delivered lectures and in-class demonstrations; facilitated class activities; advised students; and evaluated assignments and presentations

Apparel Assembly (FMD 3224)

2025 – Present

Fashion Merchandising and Design program, Virginia Tech

- **Course Level:** Core undergraduate-level course
- **Class Enrollment:** 14
- **Semesters Taught:** FA 2025

- **Course Description:** Introduces apparel assembly processes and garment construction techniques from simple to complex applications. Emphasizes stitch and seam types, pattern markings, and cost-effective production measures.
- **Course Responsibility:** Developed curriculum and instructional materials; provided lectures and in-class demonstrations on apparel construction techniques and garment assembly processes; guided students in applying industry terminology and evaluating production quality; and assessed learning through a technical sample book project and final garment project.

Fashion Analysis and Communication (FMD 4224)

2025 – Present

Fashion Merchandising and Design program, Virginia Tech

- **Course Level:** Core undergraduate-level course
- **Class Enrollment:** 28
- **Semesters Taught:** FA 2025
- **Course Description:** Examines fashion analysis, product development, forecasting, and promotional strategies within the fashion industry. Conduct thorough research on consumers, markets, and trends to develop effective promotional plans, including visual merchandising strategies.
- **Course Responsibility:** Developed and implemented instructional materials, including lecture materials, quiz bank, in-class activities, and projects; facilitated lectures and group activities; evaluated quizzes, assignments, and presentations.

Instructor of Record

Aesthetics of Consumer Experience (AESHM 342)

2022 – 2024

Apparel, Merchandising, and Design Program, Iowa State University

- **Course Level:** Core undergraduate-level course; Listed as a US Diversity and Humanities requirement course
- **Class Enrollment:** 65 – 140
- **Semesters Taught:** FA 2022 / SP 2023 / SU 2023 / FA 2023 / SP 2024
- **Course Description:** Focused on design principles and aesthetic concepts, this course explores their application in creating consumer experiences, particularly within hospitality, event, and retail environments. This course examines how individual differences and cultural influences shape aesthetic preferences.
- **Course Responsibility:** Developed and implemented course curriculum and materials; delivered lectures; facilitated in-class group activities; provided academic support to students; graded quizzes, final papers, and presentations.

Computer Applications in Digital Design (AMD 210)

2021 – 2023

Apparel, Merchandising, and Design Program, Iowa State University

- **Course Level:** Core undergraduate-level course
- **Class Enrollment:** 20 – 49
- **Semesters Taught:** FA 2021 / SP 2022 / FA 2022 / SP 2023
- **Course Description:** Applied skills in Adobe Photoshop, Illustrator, InDesign, SketchUp, Excel, and website development, with a focus on digital product design and fashion collection line development. Focused on design elements and principles, alongside digital portfolio creation for design and merchandising. The course features in-class demonstrations and activities to facilitate hands-on learning.
- **Course Responsibility:** Designed and facilitated curriculum, lectures, and in-class activities; provided student support both in and out of class; assessed student

performance through grading of in-class activities, exams, and final portfolios and presentations.

Digital Production in Event Management (EVENT 212)

2021 – 2022

Event Management Program, Iowa State University

- **Course Level:** Core undergraduate-level course
- **Class Enrollment:** 22 – 53
- **Semesters Taught:** FA 2021 / SP 2022
- **Course Description:** Applications of skills in Adobe Photoshop, Illustrator, InDesign, and SketchUp. Introduction to design elements used within the event management industry, with a focus on digital publishing of marketing and promotional materials, and other stationery items.
- **Course Responsibility:** Responsible for developing and implementing course curriculum, in-class demonstrations, providing student support, and grading quizzes, final portfolios, and presentations.

Graduate Teaching Assistant

Digital Textile Printing for Apparel Design (AMD 329)

2024

Apparel, Merchandising, and Design Program, Iowa State University

- **Course Level:** Elective undergraduate-level course for the creative design track
- **Supervisor:** Dr. Ling Zhang
- **Semesters Assisted:** SP 2024
- **Course Responsibility:** Led the production lab during class sessions and provided student support for questions related to garment construction and patternmaking.

Digital Technologies in Textile and Apparel Design (AMD 521)

2023

Apparel, Merchandising, and Design Program, Iowa State University

- **Course Level:** Elective graduate-level course for the product development track
- **Supervisor:** Dr. Rachel Eike
- **Semesters Assisted:** FA 2023
- **Course Responsibility:** Coordinated all course logistics on behalf of the supervisor. Supported students with their design projects, including guidance on product development and conducting end-user focus group interviews.

Design and Planning of Smart Clothing

2020

Department of Clothing and Textiles, Yonsei University

- **Course Level:** Elective graduate-level course
- **Supervisor:** Dr. Joo Hyeon Lee
- **Semesters Assisted:** SP 2020
- **Course Responsibility:** Coordinated all course logistics for the supervisor.

Modern Culture, Art, and Apparel Design

2019

Department of Clothing and Textiles, Yonsei University

- **Course Level:** Elective graduate-level course
- **Supervisor:** Dr. Joo Hyeon Lee
- **Semesters Assisted:** FA 2019
- **Course Responsibility:** Coordinated all course logistics for the supervisor. Assisted the supervisor in preparing the course material.

Fashion Product Development and Fashion Design Department of Clothing and Textiles, Yonsei University	2019
• Course Level: Elective undergraduate-level course • Supervisor: Dr. Joo Hyeon Lee • Semesters Assisted: SP 2019 • Course Responsibility: Coordinated all course logistics for the supervisor. Assisted the supervisor in preparing the course material.	

Other Professional Appointments

Assistant Administrator Research Center for Textiles and Fashion (RCTF), Institute of Symbiotic Life-TECH, Yonsei University, Seoul, South Korea	2018 – 2020
• Managed finances and operations for academic seminars organized by RCTF. • Oversaw financial support for eligible researchers and promoted academic support programs and seminars. • Coordinated appointments and managed documentation for invited researchers and guest speakers.	
Project Management Intern Korea Fashion Industry Association (KFIA), Seoul, South Korea	July 2019
• Promoted participation in the 2019 KFIA survey for member companies and gathered data on the educational training demands to enhance the curriculum of the new program in 2020. • Designed promotional materials for the demand survey targeting businesses and members who received educational training. • Assisted in the overall operation of the educational training program.	

Academic Honors and Awards

Sara Douglas Fellowship for Professional Promise: Doctoral Student Awarded by the International Textile and Apparel Association (ITAA)	2024
• This fellowship was awarded in recognition of the doctoral student's educational accomplishments and potential as a future scholar in the field of apparel and textiles.	
College of Human Sciences Scholarship Awarded by Iowa State University (ISU)	2024
• This scholarship was awarded in recognition of the graduate student's outstanding performance in teaching, research, and service.	
University of Fashion - Sustainability Award Awarded by the International Textile and Apparel Association (ITAA)	2022
• This award is presented to designers who have executed a significant design and contribution to sustainable design practices. • Chae, H. & Zhang, L. (2022, October 26-29). <i>Minimal to Zero</i> [Design exhibition]. 2022 Annual International Textile and Apparel Association Conference. Denver, CO, USA.	

Professional Advancement Grants (PAG) Awarded by Iowa State University (ISU) This grant is provided to graduate and professional students to assist with costs associated with attending professional meetings and conferences.	2022
Brain Korea 21 Fellowship Honored by the National Research Foundation of Korea (NRF) - This fellowship was awarded to graduate students who demonstrated exceptional commitment to full-time research and academic excellence. - Semesters received: SP 2018 / FA 2018 / SP 2019 / FA 2019	2018 – 2019
Fashion Product Design Contest Award (2nd Place) Awarded by the Korean Society of Clothing and Textiles (KSCT) - This award is presented to graduate students who have executed an effective and efficient marketing and design plan. - Developed and presented a marketing strategy and design collection for the collaboration between Korean fashion brand '8Seconds' and Italian home appliances brand 'SMEG.'	2019
Outstanding Thesis Award (Poster Session) Awarded by the Korean Society for Emotion and Sensibility (KOSES) - This award honors researchers for their outstanding contributions, innovative ideas, and exceptional scholarship as recognized by the conference committee. - Hwang, S., Chae, H., & Lee, J. (2019, May 31-June 1). <i>Research on movement-monitoring clothing to support knee joint rehabilitation exercise for elite player</i> [Conference presentation]. Annual Spring Conference of the Korean Society for Emotion and Sensibility. Yeosu, South Korea.	2019
Dean's List (Superiority Scholarship) Honored by Kyung Hee University This scholarship was awarded to students who achieved a high academic standing.	2016

Discipline Specific Software

2D CAD Program	Adobe Creative Cloud (Adobe Photoshop, Illustrator, and InDesign) Lectra Kaledo Suite (Kaledo Weave, Knit, Print, and Style) Lectra Modaris Procreate
3D CAD Program	CLO 3D SketchUp
Statistical Software	SPSS STATA NVivo

Licenses & Certifications

Preparing Future Faculty (PFF) Fellow Certificate

2024

Awarded by the Graduate College, Iowa State University

- Focused on enhancing graduate preparation through additional teaching, mentoring, and learning opportunities. Gained practical experience and credentials to better prepare for an academic career, focusing on faculty roles at various institutions through seminars and departmental service.
- Completed three courses to receive a Fellow Certificate: GRST 5850 (PFF Introductory Seminar), GRST 5860 (PFF Intermediate Seminar), GRST 5880 (PFF Special Topics)

Course Design Institute (CDI) Certificate

2023

Awarded by the Center for Excellence in Learning and Teaching, Iowa State University

- Focused on developing skills in backward and accessible course design for Canvas. Engaged in in-class discussions on assessments and student engagement while revising course content across various modalities.

Microsoft Office Specialist for Office Word 2013

2017

Issued by Microsoft

- Demonstrated advanced proficiency in Microsoft Word 2013, including creating and managing documents, formatting text and paragraphs, working with tables, and applying advanced tools and techniques for efficient document creation and editing.

Microsoft Office Specialist for Office PowerPoint 2013

2017

Issued by Microsoft

- Demonstrated advanced proficiency in Microsoft PowerPoint 2013, including creating and managing presentations, designing slide layouts, incorporating multimedia elements, and applying advanced tools and techniques to deliver engaging and professional presentations.

Professional and Academic Services

Heddleson Extension and Outreach Committee

2023 – Present

College of Human Sciences, Iowa State University

- Served as a graduate committee member of the Heddleson Extension and Outreach Committee
- Participated in application review of the Helen LeBaron Hilton Award, the Heddleson Junior Faculty Award, and the Heddleson Internship with Extension and Outreach

Apparel, Merchandising, and Design Graduate Student Association

2022 – 2025

Department of Apparel, Events, and Hospitality Management, Iowa State University

- Vice President: FA 2024 – SP 2025
- Treasurer: FA 2023 – SP 2024
- Member: SP 2022 – SP 2023

Undergraduate Scholarship Reviewer

2024

Department of Apparel, Events, and Hospitality Management, Iowa State University

- Served as a graduate reviewer for the undergraduate scholarships awarded by the Department of Apparel, Events, and Hospitality Management at Iowa State University.

Professional Affiliations

International Textile and Apparel Association (ITAA) Member	2022 – Present
Korean Society of Clothing and Textiles (KSCT) Member	2018 – 2020
Korean Society of Emotion and Sensibility (KOSES) Member	2018 – 2020