

Rebecca Pailes-Friedman

595 Madison Street
Brooklyn, NY 11221
347.267.0001
rpailles@pratt.edu

As a designer, educator, researcher, and business owner, I use my passion for design and the joy of making both when creating and when sharing my knowledge with students. I am the founder and principal designer at [Interwoven Design](#), a multidisciplinary product design consulting practice with expertise in wearable technology, soft goods, and health & medical design. I am a member of the Industrial Designers Society of America's Academy of Fellows, granted for a career of sustained excellence, and I've garnered numerous design awards, including a Core77 Design Award in 2023 for Even Adaptive Lingerie and an International Design Award in 2022 for the Perci Emergency Preparedness Vest. In addition, for the past 25 years I have been an active member of the Pratt faculty and community, teaching a multitude of courses in industrial design and fashion and served my departments and the institute in administrative positions and on multiple committees. Most recently, I have been promoting women in design as the northeast representative for IDSA's Women in Design Committee and am developing a studio art practice in ceramics.

Professional Experience

Pratt Institute / Professor

1998 -PRESENT, BROOKLYN, NY
Professor Industrial Design

Interwoven Design / Principal & Founder

2014-PRESENT, BROOKLYN, NY
Founder & Principal Designer
Lead a team of six designers as CEO and principal of Interwoven Design, LLC, a highly successful multidisciplinary design consulting practice specializing in wearable technology, soft goods, and health and medical products. Clients include Kontoor Brands, VF, HeroWear, Vanderbilt University, UTC Aerospace, CHF Solutions, Breg, Inc., Nevro Corp., and Shark/Ninja. www.getinterwoven.com

Rebecca Pailes-Friedman Studio / Artist

2023-PRESENT, BROOKLYN, NY
Artist
My ceramics practice spans both functional and abstract sculptural forms. My pieces depart from tradition as I experiment with surfaces and a variety of glazes and techniques to create texture, movement, and tonal shifts. The resulting works take on a sculptural quality, mimicking the earth from which the clay is drawn. www.rpfstudio.com

SEArch+ / Co-founder & Partner

2016-PRESENT, NY, NY
Co-Founder, Partner, and Industrial Design Lead
SEArch+ develops human-supporting design concepts for space exploration. I am the partner for architectural practice and the industrial design lead for multiple off-world habitat and infrastructure projects, primarily using 3DP technology with insitu resources for human space habitation. <http://spacexarch.com/>

ReMo Technology, Inc. / CEO & Co-founder

2016-2019, BROOKLYN, NY
Co-CEO and Founder

The smart product startup ReMo Technology develops smart athleticwear connecting people through movement and was the commercialization of a product first developed in a graduate design studio that I taught.

Nike, Inc / Starter, Design Director

2007-2008 NY, NY & BEAVERTON, OR

Director of Design for Starter Men's and Boy's

I was brought on to redirect a fledgling Starter brand for Nike, overseeing a team of eight apparel and graphic designers. After turning the business around, Nike was able to divest the brand to ICONIX Group for a licensing deal with Walmart.

Champion Athletic Apparel / Design Director

2003-2007, NY, NY

Director of Design for C9 by Champion Men's and Boy's and Design Manager for Champion Men's

Led team of 12 designers and four PLMs in the creation of a new activewear product line for Target, C9 by Champion. After three years, the line generated over \$500M at retail. Following this success, I was promoted to oversee the design of both the C9 and Champion lines.

Fila Sports, Inc / Design Director

1992-1998, NY, NY

Director of Design for Fila Men's Activewear & Fila Sport

Led team of 45 designers and product developers that generated \$250M annual sales, controlled departmental budget of \$1.5M, led global product direction, including color, materials and product offerings, and traveled globally for inspiration, development, and production.

Design Awards & Recognition

DESIGN AWARDS

2023 Core77 Design Awards - Winner

Lifestyle Accessories category

Adaptive lingerie, designed for client Even Adaptive

2023 Fast Company's Innovation by Design Award - Honoree in

Accessible Design Category - Even Adaptive

2022 IDA Design Awards - Gold

Industrial & Life Science Designs, Safety Designs category

Emergency Preparedness Vest, designed for client Perci

2022 IDA Design Awards - Bronze

Design for Society category

Emergency Preparedness Vest, designed for client Perci

2022 Core77 Design Awards - Notable

Commercial Equipment category

Apex exosuit, designed for client HeroWear

2021 International Design Excellence Awards (IDEA) - Gold

Commercial and Industrial category

Apex exosuit, designed for client HeroWear

2021 Spark Design Award – Platinum

Product Design category
Apex exosuit, designed for client HeroWear

2021 Core77 Design Awards– Notable

Commercial Equipment category
Apex exosuit, designed for client HeroWear

RECOGNITIONS

IDSA Academy of Fellows Award 2024

IDSA's prestigious Academy of Fellows, presented in recognition of significant contribution to the Society and the industrial design profession, excellence in academic advancement, or personal achievement.

IDSA 20/20, 2020

One of 20 IDSA members in 2020 who received recognition for offering their valuable time and talents toward the betterment of others within their communities.

BF+DA Positive Impact Award Recipient, 2016

The Positive Impact Awards is part of the BF+DA celebration of two years as a Brooklyn-based social innovation entity that is supporting over 32 sustainable businesses in fashion, technology, and research.

Education

DEGREES

Pratt Institute, Brooklyn, NY

MASTER OF INDUSTRIAL DESIGN (MID), 2002
Summa cum laude

Pratt Institute, Brooklyn, NY

BACHELOR OF FINE ARTS (BFA), FASHION, 1985
Magna cum laude

SELECTED SELF-INITIATED PROFESSIONAL DEVELOPMENT

UC Berkeley, Berkeley, CA

CERTIFICATE – Haas Lester Center for Entrepreneurship & Innovation 2016

School of Visual Arts, New York, NY

PROFESSIONAL DEVELOPMENT – Computer Graphics and Typography, 1989

Fashion Institute of Technology, New York, NY

CERTIFICATE PROGRAM – Millinery Design, 1987

Teaching Experience

ACADEMIC APPOINTMENTS

Pratt Institute, Brooklyn, NY 2022–Present

Professor Full-time Tenure Track, Industrial Design, School of Design

Pratt Institute, Brooklyn, NY, 2017–2021

Adjunct Professor with CCE, Industrial Design

Pratt Institute, Brooklyn, NY, 1998–2017

Adjunct Associate Professor, Fashion & Industrial Design

Parsons School of Design, New York, NY, 2003–2004

Adjunct Professor of Fashion

GRADUATE COURSES TAUGHT

Pratt Institute, Industrial Design Department

- IND 698-01 MID Thesis Advisor, 2019–2024
- IND 699-01 MID Thesis Advisor, 2019–2024
- IND 661-01 Thesis Formulation, Spring 2023
- IND 651-12 Prototypes II, Soft Goods, Fall 2022
- IND-601-01 Graduate Design Studio, Summer 2022
- IND-6678-01 Global Research Seminar, GID Program, 2017
- IND-651-04 Prototypes I, Soft Goods, 2003–2014
- IND-652-04 Prototypes II, Soft Goods, 2003–2014
- FASD 500-01 Methods, Materials, and Measurements, 2015

UNDERGRADUATE COURSES TAUGHT

Pratt Institute, Industrial Design Department

- IND-401-06 Senior Design Studio VII, Technology and Mobility, Fall 2023, Fall 2024
- IND-401-07 Design Studio V, Speculative Survival Gear, Team taught with Assistant Professor Swati Piparsania, Fall 2022
- IND-302-04 Junior Design Studio IV, Wearable Technology and NASA Collaboration (grant supported), Spring 2016–2024
- IND-451-12 Prototypes II, Soft Goods, FA2003- 2022
- IND-302-04 Junior Design Studio IV, Play It Safe, Protective Sports Equipment, Spring 2022, Fall 2018
- IND-301-07 Junior Design Studio III, Adaptive Design Fall 2021
- IND-401-01 Senior Design Studio V, Portable Environments 2016–2019
- IND-401-01 Senior Design Studio VI, Sensing Things 2019
- IND-401-01 Senior Design Studio V, Internet of Things 2018
- IND-302-04 Senior Design Studio IV, Soft Goods Design 2018
- IND-401-01 Mars Transit Habitat Design Studio (grant supported), 2016–2018

Pratt Institute, Fashion Department

- FASD-301-01 Shape & Form I
- FASD 302-01 Shape & Form III, 2016–2018
- FASD 121-01 Drape & Construct I
- FASD 122-01 Drape & Construct II
- FASD 202-01 Knitwear: Cut and Sew
- FASD 107-01 Light, Color, and Design, 2011–2016
- FASD 543-01 Functional Clothing Design, 2012–2014

- FASD 306-01 Activewear Studio, 2012–2016
- FASD 401-01 Senior Thesis Collection I, 1998–2002
- FASD 402-01 Senior Thesis Collection II, 1998–2002

MISCELLANEOUS TEACHING & WORKSHOPS

E-textiles Workshop – An Exploration of Wearable Media
ECHO, Dubai, December 2017

Light It Up! Workshop in Wearable Technology
Moona Center for Collaborative Learning, Haifa, Israel, 2015

Light It Up! Workshop in Wearable Technology
Reach Higher Education Initiative, White House, Washington, D.C., 2014

Residential Interior Design Workshop
State University of New York, Continuing Education Department, Fall 2011 and Spring 2012

SELECTED CURATED EDUCATIONAL PROGRAMMING

Business and Design Workshop
Center for Sustainable Design Study, Pratt Institute 2011–2015

Starting a Design Business Workshop
Center for Sustainable Design Study, Pratt Institute 2011–2015

CORPORATE PARTNERSHIPS/SPONSORED STUDIOS

Pratt Institute, Brooklyn, NY, 2009–2024

NASA Human Habitability Wearable Technology, 2024
Led two student teams through a process of prototype refinement for astronaut testing at NASA. This paid summer internship work was an extension of the work done in the Junior Studio class. Funded by NASA for \$6,150.

UMBRA Product Design for Target, Sponsored Studio
For students by students. Student winners had their products produced and sold by Umbra. Funding received: \$30,000.

Me.U, Sponsored Studio
Led a multidisciplinary team of design students from Fashion, ID, and Comm D in the design and development of a new earbud system.

Máh Brands Limited, Sponsored Studio
Led a team of selected design students in the creation of a next-generation diaper bag. Funding received: \$20,000.

Supima Cotton, Student Design Competition
Fashion students worked on 100% cotton to rethink fashion. Funding received: \$10,000.

Urban Outfitters, Dress Competition
Fashion students competed to design dresses for the Urban Outfitters line and a design internship. Funding received: \$15,000.

Cotton Incorporated, Junior Sportswear Studio
Fashion students worked on 100% cotton to rethink fashion. Funding received: \$10,000

Academic Leadership & Administrative Experience

Industrial Design Department Self-Study / Project Lead

2024 - PRATT INSTITUTE, BROOKLYN, NY

Recruited by Department Chair Ignacio Urbina Polo to lead a comprehensive self-study of the undergraduate curriculum. Together with selected members of the faculty, the self-study aims to create a snapshot of the current curriculum and make recommendations for where the program should point in the future.

Research and Strategic Partnership / Research Leader

2017-2020 - PRATT INSTITUTE, BROOKLYN, NY

School of Design Representative

Represented the School of Design to the Associate Provost for Research and Strategic Partnerships and the Dean of the School of Design. Communicated research initiatives, conducted outreach, explored new research developments, supported IRB reviews, and developed policies that better support faculty and staff doing research. Additional responsibilities included:

- Identifying candidates for opportunities and challenges and those looking to lead the SOD Research Open House.
- Reaching out to faculty interested in developing/pursuing a project.
- Developing an IRB protocol in concert with the IRB review committee.
- Enhancing the focus on research at Pratt and sharing ideas on how to help support research in other schools.
- Helping to organize the content and logistics of outside research workshops.
- Collaborating on the organization of the March Research Open House.
- Mentoring external faculty looking to expand their resources with new research ideas.

IMARI - Intelligent Materials Applied Research & Innovation Lab

2014-2019 - PRATT INSTITUTE, BROOKLYN, NY

Founder/Director/Researcher

Initiated and led the practice-based design research and materials exploration facility, which builds cross-functional collaboration between Pratt's design community, researchers, scientists, and engineers

Center for Sustainable Design Study / Co-director

2011-2015 - PRATT INSTITUTE, BROOKLYN, NY

Co-Director, Certificate of Design Entrepreneurship Program

Developed programming and the curriculum and was the lead instructor in the Certificate of Design Entrepreneurship Program, a summer intensive with the goal of turning great design projects into viable companies. The program was built around intensive multi week workshops. I was the lead instructor for Business and Design and Starting a Design Business.

Fashion Department / Interim Chair

2009-2011 - PRATT INSTITUTE, BROOKLYN, NY

Interim Department Chair

Initiatives included:

- Developed a senior curriculum in which all graduating students designed and developed a thesis collection presented to a juried panel of industry

leaders at an all-day critique at Milk Studios. Top student collections were included in the annual Pratt Fashion Show fundraiser.

- Recruited and developed strong industry partners, including securing the attendance and involvement of Anna Wintour, editor of *Vogue* and kingmaker in the fashion industry, at the Pratt Fashion Show.
- Led design and planning for the department's move from North Hall to Stueben Hall, including the layout and design of classrooms and other facilities, sewing and knitting equipment, and a departmental display area showcasing 2D and 3D student work.
- Coordinated a complex team of educators and artists.
- Maintained oversight of facilities and budget.
- Oversaw planning and program development within the department.
- Wrote assessments and led the NASAD accreditation for the Fashion department.

Fashion Department / Internship Coordinator

2009–2011 – PRATT INSTITUTE, BROOKLYN, NY

Internship Coordinator

Recruited internship positions from the apparel industry for all graduating seniors in the BFA Fashion Design program and helped up to 45 students each year in placement and working with their supervisors once placed.

Service

SELECTED ACADEMIC SERVICE TO THE DEPARTMENT

- **Undergraduate Self-Study Leader**, Industrial Design Department, 2024
- **Curriculum Committee**, Industrial Design Department, 2018–2024 Co-Chair 2024–2025
- **Course Coordinator**, Senior Studio, Fall 2022–23
- **NASAD Report Prep**, Industrial Design Department, 2014–2015
- **Chair, Peer Review Committee for Tenure and Promotion**, Industrial Design Department, 2011–2014
- **Industrial Design Portfolio Review**, 2007–2013

SELECTED ACADEMIC SERVICE TO THE INSTITUTE

- **Research Yard, Design Clinic**, 2022–2024
- **Search Committee**, Fashion Department full time faculty search, 2022
- **Research Leader**, School of Design representative, 2018–2020
- **Institute Calendar Committee**, 2011–2015
- **Development Committee**, Board of Trustees Faculty Representative, 2014–2016
- **Pratt Centers and Labs Strategic Planning Committee**, 2014–2015
- **Interior Design Full-Time Professor Search Committee**, 2011
- **Fashion Design Chair Search Committee**, 1998–1999, 2008
- **National Portfolio Day Committee**, 2008–2010

SELECTED ACADEMIC SERVICE TO COMMUNITY AT LARGE

- **GUEST LECTURE**, University of Houston, Department of Industrial Design, “Wearable Technology, Healthcare, Medical and Wellness” October 2024 (virtual)

- **GUEST LECTURE**, Ohio State University, Department of Mechanical and Aerospace Engineering, “Unified Vision: Designing with Engineering from the Start” November 2024 (in person)
- **GUEST LECTURE**, Georgia Tech, School of Biology “Bio-Inspired Design” December 2024 (virtual)

SELECTED PROFESSIONAL SERVICE TO THE FIELD

- **Core77 Design Awards**, Sports & Outdoors Jury Captain, 2024
- **IDSA Women in Design Deep Dive Conference**, planning and support, 2024
- **IDSA Women in Design Committee**, Northeast Regional Representative, 2022–2024

PROFESSIONAL MEMBERSHIPS

- **IDSA**, Industrial Designers Society of America, professional membership
- **Female Design Council**, member

Publications

PUBLISHED PAPERS & CONFERENCE PROCEEDINGS

Bringing it Home: Finding Synergies Between Earth and Space Construction and Design

International Conference on Environmental Systems, St. Paul, Minnesota, Christina Ciardullo, **Rebecca Pailes-Friedman**, Michael Morris, Raymond G. Clinton, Jennifer E. Edmunson, Michael R. Fiske

Project Olympus: Off-World Additive Construction for Lunar Surface Infrastructure

Melodie Yashar, Michael Morris, **Rebecca Pailes-Friedman**, Waleed Elshanshoury, Mahsa Esfandabadi, David Gomez, Alexander Guzeev, Vittorio Netti, Albert Rajkumar, Evan Jensen, Jason Ballard

Robotic Construction & Prototyping of a 3D-Printed Mars Surface Habitat

70th International Astronautical Congress (IAC), Washington, D.C. Melodie Yashar, Christina Ciardullo, Michael Morris, **Rebecca Pailes-Friedman**, Nikita Chenniuntai, Sergey Nefedov, Adam Day, Joe Aronis, Stephanie Pender

Building Information Modeling (BIM) Workflows for Construction Sequencing & 4D-Planning of 3D-Printed ISRU Surface Habitats

M. Yashar, P. Michealsen, B. Hammond, J. Alvizar, C. Ciardullo, M. Morris, **R. Pailes-Friedman**, G. Bell, R. Tucker, T. Shen, S. Austin, L. LeBlanc

Electronics and Fabrics, the Development of Garment Based

Wearables European Materials Science Conference, Strasbourg, France, May 2017
Rebecca Pailes-Friedman

BioWear: A Kinetic Accessory That Communicates Emotions Through Wearable Technology

UbiComp, ACM International Joint Conference on Pervasive and Ubiquitous Computing, Paper presentation, Osaka, Japan, September 2015
Rebecca Pailes-Friedman

Electronic-textile System for the Evaluation of Wearable Technology

UbiComp, ACM International Joint Conference on Pervasive and Ubiquitous Computing, Paper presentation, Seattle, WA, September 2014

Rebecca Pailes-Friedman

PUBLISHED ARTICLES

“Creativity as a Natural Pathway,” *INNOVATION*, Summer 2024

“Appeal vs. Responsibility,” *INNOVATION*, Spring 2024

“Insights from the Women in Design Committee,” *INNOVATION*, Winter 2023

“Design Strategy: Your Secret Weapon,” *INNOVATION*, Fall 2023

“Networking, Resilience, and Balance,” *INNOVATION*, Summer 2023

“Views on the Impact of AI,” *INNOVATION*, Spring 2023

BOOKS & BOOK CHAPTERS

“Smart Textiles for Designers, Inventing the Future of Fabric”

Rebecca Pailes-Friedman, Laurence King Publishers, London, January 2016

Sewn Composition Assignment, “100 Assignments: The Future of the Foundation Course in Art and Design”

Rebecca Pailes-Friedman, edited by Briggs, C. and Westley, H., PCA Press, November 2013

BOOK PROJECTS IN PROGRESS

Women Designer Hero’s

Rebecca Pailes-Friedman

A collection of celebrated works from notable women designers. Anticipated completion, 2025.

RESEARCH PROJECTS

Smart ePants – Smart Electronically Powered and Networked Textile Systems – IARPA Grant Supported

2022–Present

The Smart ePants program develops clothing with integrated audio, video, and geolocation sensor systems that feature the same stretchability, bendability, washability, and comfort of regular textiles. By weaving these devices directly into garments (e.g., shirts, pants, socks, and underwear), intelligence community staff will be able to record information from their environment hands-free, without the need to wear uncomfortable, bulky, and rigid devices. My role on this large multifunctional team, which includes Arete, MIT Lincoln Labs, EPFL, and the Universities of Minnesota, Arizona, and Wayne State, is as the resident textiles and performance garment construction expert.

HeroWear – Soft Back-Assist Exosuit for Delivery Drivers – NSF Grant Supported

2022–Present

This project is an extension of the initial design and development work completed by Interwoven Design Group on the Apex exosuit with Principal Investigator Dr. Matthew Yandel of HeroWear. This research project aims to redesign the Apex to meet the needs of last-mile delivery drivers, namely to be comfortable for prolonged driving and to allow for hands-free mode-switching (turning assistance on/off).

HeroWear – Soft Back-Assist Exosuit for Medical Professionals – NIOSH Grant Supported

2022–Present

Principal Investigator Dr. Matthew Yandel of HeroWear contacted Interwoven Design Group to participate as a subcontractor in its Phase II SBIR project aimed at developing an exosuit for medical professionals.

SABER – Soldier Assistive Bionic Exosuit for Resupply

2021–2023

Interwoven Design worked with the team of engineers from Vanderbilt University with a collaborative project with the 101st Airborne Division at Fort Campbell to design and test a first-of-its-kind exoskeleton that supports U.S. Army soldiers participating in sustainment and logistics operations. As the industrial design lead for this project we worked directly with the Vanderbilt Lab and the US Army. This work is part of the Pathfinder Project, one avenue for advancing the Army Futures Command's modernization goals. Associate Professor of Mechanical Engineering Karl Zelik received a one-year \$1.2 million investment from DEVCOM and the Civil-Military Innovation Institute Inc. The funding supported collaboration with soldiers of the 101st Airborne Division to develop SABER.

NASA's MMPACT (Moon-to-Mars Planetary Autonomous Construction Technology) – Lunar Lantern

2019–2021

NASA's Artemis Program is a two-phased plan to send American astronauts back to the Moon and to develop the capabilities for long-term presence on the lunar surface. It includes SEArch+'s research work in the design and development of the Lunar Lantern, specifically the infrastructure of landing pads, roadways, and berms.

NASA's Phase 3 3D-Printed Habitat Challenge – Mars X-House

2017–2019

MARS X-HOUSE is the first-place winner in multiple phases of NASA's Phase 3 3D-Printed Habitat Challenge. The MARS X HOUSE employs an evidence-based design process to introduce the design and constructability of a future habitat for a crew of four to live and work on Mars for the duration of one Earth year.

The Combine, 2017 Cohort New York City Media Lab – ReMo Haptics

2017

A technology-connected gesture-control wearable that guides movements wirelessly through vibration to help athletes train more efficiently and avoid repetitive motion injuries.

**Technology Collaboration Center, Johnson Space Center, Houston, TX
Research Leader**

2017–2018

Led four research groups developing wearable technology in conjunction with the Wearable Technology Workshop at the Johnson Space Center.

**NY Media Lab, Brooklyn, New York, NY
Research and Development Participant**

2016–2017

Participated in this combined faculty/student entrepreneurship program, working on the development of ReMo, a haptic technology platform that developed from a collaborative course I caught between Pratt and the NYU Tandon School of Engineering.

**UC Berkeley Haas Lester Center for Entrepreneurship and Innovation,
Berkeley, CA**

Research and Development Participant

2015–2016

Participated as a member of an elite team of tech entrepreneurs (one of 24 teams selected out of thousands of applications) in this lean start-up tech accelerator program. Competed on *America's Greatest Makers*, a reality TV show where contestants compete to design, develop, and commercialize tech-enabled consumer products. My team attended and earned an Entrepreneurship Certificate from the UC Berkeley Haas School of Business. We commercialized our product, a wearable baby monitor called WithMe.

**Brooklyn Fashion & Design Accelerator, Pratt Institute, Brooklyn, NY
Wearable Technology Research Fellow**

2014–2015

Active research in tLAB. Received a \$15,000 faculty development grant with Joseph Morris to create an interactive textile installation for the Pratt Campus. Won a

commission for BioWear from the Biet Hiar Museum in Tel Aviv, Israel, and worked with the US Embassy in Israel to develop a series of lectures and workshops on wearable technology. Details available at: www.getinterwoven.com/our-work/biowear/news.pratt.edu/article/professor-rebeccah-pailes-friedman-and-students-display-wearable-technology/

IMARI Lab, Pratt Institute, Brooklyn, NY

Founder & Director

2014–2018

The Intelligent Materials Applied Research & Innovation Lab is a practice-based design research and materials exploration facility that fosters collaboration between Pratt's design community members and researchers, scientists, and engineers.

RESEARCH COLLABORATIONS

Pratt Institute, School of Design, Brooklyn, NY 2013–Present

Partnerships and Collaborations

Developed and executed the following collaborative ventures through Pratt Institute's School of Design:

- **Wearable Technologies:** NYU-Poly Interactive Engineering/Pratt Industrial Design, 2016
- **xHab Mars Transit Habitat Design Studio:** NASA/Pratt Architecture/Pratt Industrial Design, 2015–2016
- **NASA Wearable Tech Design Studio:** NASA/Stony Brook University Electrical Engineering/Pratt Industrial Design, 2014
- **NASA Wearable Tech Design Studio:** NASA/University of New Hampshire EE/ Pratt Industrial Design, 2013

RESEARCH AWARDS

NASA 3D Printed Habitat Challenge Phase 3, Top Prize Winner, Mars X House, SEArch+ in collaboration with Apis Cor, May 2019

NASA 3D Printed Habitat Challenge Phase 2, Top Prize Winner, Mars X House, SEArch+ in collaboration with Apis Cor, February 2019

NASA 3D-Printed Habitat Competition Level 1 of Phase 3, 4th Place, SEArch in collaboration with Apis Cor, July 2018

NASA 3D Printed Habitat Challenge Phase 1, Top Prize Winner, Mars X House, SEArch+ in collaboration with Apis Cor, August 2018

PATENTS AWARDED

Pailes-Friedman, R, 2023 CLOSURE SYSTEM FOR GARMENTS, U.S. Provisional Application No. US18/374,088, application filed on September 28, 2023 (pending). Marianne H. Weber, Rebeccah Pailes-Friedman, Aybuke Sahin, Yukiko Naio, Mallory Blackburn

Pailes-Friedman, R, 2021 EXOSUIT HAVING ADJUSTABLE MODULAR STRAPS AND BANDS, International Patent No. 2021188516A1, application filed on March 16, 2021.

Matthew Yandell, Matthew Marino, Mark Harris, Rebeccah Pailles-Friedman, Ryu Tomita, Paul Reamey, Evan Huggins, Karl Zelik

Pailes-Friedman, R, 2021 EXOSUIT HAVING ADJUSTABLE MODULAR STRAPS AND BANDS, U.S. Patent No. US20230100371A1, application filed on March 16, 2021.

Matthew Yandell, Matthew Marino, Mark Harris, Rebeccah Pailles-Friedman, Ryu Tomita, Paul Reamey, Evan Huggins, Karl Zelik

Pailes-Friedman, R, 2021 EXOSUIT HAVING ADJUSTABLE MODULAR STRAPS AND BANDS, European Patent No. EP4120967A1, application filed on March 16, 2021.

Matthew Yandell, Matthew Marino, Mark Harris, Rebeccah Pailles-Friedman, Ryu Tomita, Paul Reamey, Evan Huggins, Karl Zelik

Grants Awarded

New York Space Grant Recipient – Wearable Technology Project 2022–2023

Funding received: \$2,000 to take a class to the Johnson Space Center, Houston, TX, to present our research at the Wearable Technology Workshop sponsored by the Technology Collaboration Center of Houston.

SAFRA Bank & Brazilian-American Chamber of Commerce Grant Recipient – Crafting a Sustainable Future: Collaborative Design in the Amazon 2023

Received \$5,000 to finance an exploratory trip to the Brazilian Amazon for the Department of Industrial Design at Pratt Institute. This trip was the first step in establishing the program that will be a summer course for Pratt's Industrial Design Students that focuses on responsible and sustainable making and craft practices in the Amazon. This course of study will promote cross-cultural exchange, sustainable design, and artisanal collaboration while raising awareness about the environment and cultural heritage of the region.

NASA Wear Lab; Wearable Technology Project 2017–2018

Received \$2,000 from Red Wing Shoes to take a class to the Johnson Space Center in Houston, TX, to present our research at the Wearable Technology Workshop sponsored by the Technology Collaboration Center of Houston.

New York Space Grant Recipient Wearable Technology Project 2017–2018

Received \$2,000 to take a class to the Johnson Space Center in Houston, TX, to present our research at the Wearable Technology Workshop sponsored by the Technology Collaboration Center of Houston.

NYC Media Lab Continued Support Grant 2017

Received \$25,000 to develop ReMo haptic technology.

NYC Media Lab Combine Grant 2017

Received \$25,000 to develop ReMo Haptic technology.

Verizon Connected Futures Grant

2016–2017

Received \$17,500 to develop ReMo haptic technology.

Exploration Habitat (xHab) Academic Innovation Challenge Grant

2016–2017

On behalf of NASA Headquarters, Human Exploration and Operations Mission Directorate, received \$20,000 for the study and design of the Mars Surface Habitat.

Exploration Habitat (xHab) Academic Innovation Challenge Grant

2015–2016

On behalf of NASA Headquarters, Human Exploration and Operations Mission Directorate, received \$15,000 for the study and design of the Mars Transit Habitat.

Faculty Development Fund Recipient – ICEBERG

2015–2016

A joint project with Assistant Professor Joseph Morris.

New York Space Grant Recipient NASA Wear Lab

2013–2016

The Wearable Technology Project funding received \$3,000 annually for three years to travel with the class to the Johnson Space Center in Houston, TX, and present our research at the annual Wearable Technology Symposium.

Exhibitions & Collaborative Projects

COLLABORATIVE PROJECTS

Pratt Institute, School of Design, Brooklyn NY

- **Universidade Federal do Amazonas / Pratt ID – Crafting a Sustainable Future: Collaborative Design in the Amazon 2023**
- **NYU-Poly Interactive Engineering / Pratt ID – Wearable Technologies, 2016**
- **NASA/ Pratt Architecture/ ID – xHab Mars Transit Habitat Design Studio, 2015–2017**
- **NASA/ Stony Brook University EE/ Pratt ID – NASA Wearable Tech Design Studio, 2014**
- **NASA/ University of New Hampshire EE/ Pratt ID – NASA Wearable Tech Design Studio, 2013**

GROUP EXHIBITIONS

- **Street Scene**, NYCxDESIGNxSOUVENIR Exhibit, Manhattan, NY, 2024
- **BioWear Project**, Coded Couture, curated by CuratorSquared, Tufts University Art Gallery, Medford, MA, 2017
- **BioWear Project**, Coded Couture, curated by CuratorSquared, Ulrich Museum of Art, Wichita State University Kansas, 2016
- **BioWear Project**, Coded Couture, curated by CuratorSquared, Pratt Manhattan Gallery, NY, NY, 2016

- *BioWear Project, My Shirt is Breathing* curated by Ayelet Bitan-Shlonsky, Biet Hair Museum, Tel Aviv, Israel, 2016
- *Zero Waste Project*, Fashion Faculty Show, curated by Shannon Bell Price, Schafler Gallery, Pratt Institute Brooklyn, NY, 2013
- *Technical Outerwear Illustration*, Pratt Faculty Dining Room, Brooklyn, NY, 2013
- *Zero Waste Project*, Fashion Faculty Show, curated by Jennifer Minitti, Schafler Gallery, Pratt Institute Brooklyn, NY, 2012
- *Archi-Tech*, Product Design Building Toy, Felissimo, 2001
- *Appetaster*, Pratt Show and 20/20 News program, 2001
- *Wedge Chair*, Milan Furniture Fair, 2000

CURATED EXHIBITIONS

- *The Peep Show*, Wearable Technology and Fashion, BF+DA, Brooklyn, NY, 2015
- *Principals of Design: Pratt Fashion Alumni*, Pratt Manhattan Gallery, NY, NY, 2011
- *Pratt + Paper & Ralph Pucci*, New York, NY, 2011
- *Inspiration*, Video Installation, New York, NY, 2011
- *Fashion Future*, New York, NY, 2010

CURATED STUDENT WORK

- *Sensing Things and Wearable Technology Student Projects*, curated for exhibit at Biet Hiar Museum, Tel Aviv Israel, June 2016

Invited Talks & Panels

INVITED TALKS

Bio-Inspired Design – HeroWear Apex Case Study

Invited to speak by Jeannette Yen, Professor, School of Biology and Director, Center for Biologically Inspired Design, to their class at the Georgia Institute of Technology, December 2024

Unified Vision: Designing with Engineering from the Start

Invited to speak at Ohio State University, School of Engineering November, 2024

Wearable Technology, Healthcare, Medical & Wellness

Invited to speak to University of Houston Graduate Seminar October 2024

Building Highly Effective Design Teams through Inclusion of Diverse Perspectives! Women in Design Deep Dive Conference Speaker, Chicago, IL, 2023

UFAM / Pratt Collaboration

The Federal University of Amazonas, July 2023

Crafting a Sustainable Future : Collaborative Design in the Amazon

Brazilian American Chamber of Commerce, September 2023

Women Who Hardware, NYCxDESIGN Talk, New Lab, Brooklyn, NY, 2022

Space Architecture, Lake Erie Summit – AIA Minnesota, 2021

Creating and Capturing Innovation, Kontoor Brands, Innovation Summit, 2020

Designing a Lunar Landing Pad, Pratt Research Talks Series, Virtual, 2020

Sustainability and Technology in Fashion, Brooklyn Public Library, Brooklyn, NY, 2018

Capturing and Communicating Body Movement with Wearable Technology, Invited Speaker, Materials Science Conference, Phoenix AZ, 2018

Redefining Body Language - Connecting Through Sensory Technology, Keynote Speaker, ECHO, Dubai, 2017

Keynote Speaker, NYU Ada Lovelace Day event featuring Women in STEM, 2017

Electronics and Fabrics, the Development of Garment Based Wearables, 2017 Printed Electronics Summit, University of Washington, Seattle, WA, 2017

Smart Textiles and the Design Process, “Fashion Meets Functional Textiles,” HeadStart Fashion, Aarhus, Denmark, 2016

Innovation in Textiles: Sustainability Panel, EcoSessions, Wix Studio, New York, NY, 2016

Why NASA Needs Designers, Alumni Day Speaker, Pratt Institute, Brooklyn, NY, 2016

Super Sensing in Textiles, Super Sensing Forum, University of Tokyo, Tokyo, Japan, 2016

Smart Textiles for Designers, Book Lecture, Pratt Manhattan Gallery, New York, NY, 2016

Problem Solving & Ideation, Art Institutes, Industrial Design Department, San Francisco, CA, 2015

BioWear: A Kinetic Accessory That Communicates Emotions Through Wearable Technology, Osaka Japan, 2015

Light It Up! Workshop in Wearable Technology, Moona Center for Collaborative Learning, Haifa, Israel, 2015

BioWear Project Artist Lecture, Biet Ha-ir Museum, Tel Aviv, Israel, 2015

Conducting Research in Wearable Technology – NASA and Pratt Collaborations, Bezalel, Academy of Arts and Design, Jerusalem, Israel, 2015

Light It Up! Workshop in Wearable Technology, Bedouin region, Israel, 2015

Interdisciplinary Design Education in Practice, RiDE Lecture Series, Pratt Institute, Brooklyn, NY, 2015

Multidisciplinary Collaborations, Columbia University, New York, NY, 2015

Light It Up! Workshop in Wearable Technology, Reach Higher Education Initiative, White House, Washington, D.C., 2014

From Athletes to Astronauts, Noon Sense Talks, Pratt ID Dept, Brooklyn NY, 2014

PANELS

Design & Failure: Failing Forward from Unwanted Design, NYCxDesign Week Panel Discussion, Brooklyn, NY, 2024

Beyond the Hype: Establishing Authentic Design Strategy, International Design Conference, Panel Discussion, 2023

Celebrating Women Designers Who Tell Our Stories, IDSA NYC Event, Panel Discussion, March 2023

FIT – MIT – AFFOA Panel - Smart Textile Innovations, New York, NY, 2019

Design to Move - Panel Discussion, MoMA, New York, NY, 2019

Haute Tech 3 - Fashion, Law and Technology Panel, New York, NY, 2018

Designing for Wearable Technology Using Smart Textiles, ECHO Dubai, UAE 2018

Innovation in Textiles: Sustainability Panel, EcoSessions, Wix Studio, New York, NY, 2017

Super Sensing in Textiles, Keynote Speaker, Super Sensing Forum, University of Tokyo, Tokyo, Japan, 2016

BioWear: A Kinetic Accessory That Communicates Emotions Through Wearable Technology, UbiComp, ACM International Joint Conference on Pervasive and Ubiquitous Computing, Paper presentation, Osaka, Japan, 2015

SXStyle Beyond Wearables: Future Fabrics & Fashion Design, SXSW Interactive, Austin, TX, 2015

Future Interfaces, NYC Media Lab, 2014

Wearable Technology Workshop, White House Fashion Education Event, 2014

Electronic-Textile System for the Evaluation of Wearable Technology, UbiComp ACM International Joint Conference on Pervasive and Ubiquitous Computing, Paper presentation, Seattle, WA, 2014

Cross-Disciplinary Design Research Methods, Digital Spa, FIT, 2014

Who Designed Marilyn's Dress? Impact, Craft, and Future of Film Costume, NYU, 2014. Presentation on smart textiles followed by a panel discussion.

Washable Fashion and New Technology, CFDA Panel, 2014

Sustainable Art Panel, co-chair Pailes-Friedman, R. and Cooney, A. Pratt Institute, College Art Association Annual Conference, New York, NY, 2011

Selected Media

PRESS, PODCASTS & INTERVIEWS

Rebecca Pailes-Friedman: Pioneering Innovations in Wearable Technology, CIO Media, March 26, 2024

<https://theciomedia.com/rebecca-pailes-friedman-pioneering-innovations-in-wearable-technology/>

Women of Wearable Tech: Reshaping the Smart Clothing Industry, Apparel Resources, March 7, 2023

<https://apparelresources.com/technology-news/manufacturing-tech/women-wearable-tech-reshaping-smart-clothing-industry/>

Assessing the Future of Design, Plastics Engineering, July/August 2022

<https://7998076a.flowpaper.com/SPEPEMagazineJulyAug22web/#page=26>

Merging the Future and the Past, Depositphotos, Trends 2022

<https://depositphotos.com/trends2022.html>

Q&A with Rebecca Pailes-Friedman, Loomia Instagram, December 31, 2021

<https://www.loomia.com/blog/rebecca-pailes-friedman-q-and-a>

NASA Wants to Build a Lunar Base by 2030. CNN Style, January 17, 2021

<https://www.cnn.com/style/article/3d-print-lunar-base-moon-dust-spc-intl/index.html>

Designing for Life on the Moon and Mars, Women Build Podcast: December 7, 2020

<https://www.worldarchitecturenews.com/article/1702072/women-build-podcast-designing-life-moon-mars>

Temperature-Controlling Textiles, Royal Society of Chemistry, March 4, 2020

<https://edu.rsc.org/feature/temperature-controlling-textiles/4011183.article>

Future of Everything: Work Clothes, Reimagined for an Age of Wearable Technology, Wall Street Journal, March 4, 2020

<https://www.wsj.com/articles/work-clothes-reimagined-for-an-age-of-wearable-tech-11577981068>

With One Step in the Future: Innovator Rebecca Pailes-Friedman, Attire Club, March 4, 2020
<https://attireclub.org/2020/01/06/discover-the-winter-2020-issue-of-incompany-by-attire-club/>

What Else Can Your Clothing Do For You, Electric Runway, May 22, 2019
<https://electricrunway.com/what-else-can-your-clothing-do-for-you/>

Las telas (también) se vuelven inteligentes, Vogue Mexico, May 9, 2019
<https://www.vogue.mx/moda/articulo/que-son-las-telas-inteligentes>

SEArch+ Claims FIRST place in Design Level NASA's 3D-Printed Habitat Challenge, NASA, March 29, 2019
https://www.nasa.gov/directorates/spacetech/centennial_challenges/3DP_Hab/latest-updates-from-nasa-on-3d-printed-habitat-competition

NASA Awards Five Teams \$100,000 in 3D-Printed Habitat Competition, Architect, July 30, 2018
https://www.architectmagazine.com/technology/nasa-awards-five-teams-100-000-in-3d-printed-habitat-competition_o

Here's What NASA Thinks Mars Houses Could Look Like, Popular Mechanics, July 30, 2018
<https://www.popularmechanics.com/space/moon-mars/a22591210/nasa-mars-houses/>

The Future Is Knit: Why the Ancient Art of Knitting Is High-Tech Again Gizmodo, May 18, 2018
<https://gizmodo.com/the-future-is-knit-why-the-ancient-art-of-knitting-is-1826142294>

Spacesuits and Smart Fabrics, Material is Your Business, June 21, 2017
<https://materialisyourbusiness.com/2017/06/016-rebecca-pailes-friedman-interwoven-design-group-spacesuits-smart-fabrics/>

Brooklyn Ballet's Nutcracker Features Costumes by Professor Rebecca Pailes, Pratt Press, December 1, 2017
<https://www.pratt.edu/news/view/brooklyn-ballets-nutcracker-features-costumes-by-professor-rebecca-pailes>

Mission to Mars, Pratt Design Reaches for the Stars, IDSA, January 5, 2017
<http://www.idsa.org/news/member-news/mission-mars>

A New Home on Mars: NASA Langley's Icy Concept for Living on the Red Planet, NASA, December 29, 2016
<https://www.nasa.gov/feature/langley/a-new-home-on-mars-nasa-langley-s-icy-concept-for-living-on-the-red-planet>

Smart Textiles and the Future of Sustainable Fashion, Sourcing Journal, November 1, 2016
<https://sourcingjournal.com/topics/sustainability/smart-textiles-future-sustainable-fashion-56200/>

Why NASA Needs Architects and Designers, Fast Company, July 15, 2016,
<http://www.fastcodesign.com/3061839/why-nasa-needs-architects-and-designers>

Home Sweet Habitat: Students Help NASA Design Mars Spacecraft Living Quarters, Scientific American, June 3, 2016
<http://www.scientificamerican.com/article/home-sweet-habitat-students-help-nasa-design-mars-spacecraft-living-quarters/>

NASA Project Collaboration Inspires Students to Create Habitat for Travel to Mars, Pratt, May 1, 2016
<https://www.pratt.edu/news/view/nasa-project-collaboration-inspires-students-to-create-habitat-for-travel-to-mars>

Coded Couture exhibition in New York presents garments that detect lies and read tweets, Dezeen, March 17, 2016
<http://www.dezeen.com/2016/03/17/coded-couture-fashion-futuristic-exhibition-pratt-gallery-new-york/>

Smart Fashion of the Future Is on View at Pratt Manhattan's "Coded_Couture" Show, Vogue, February 17, 2016
<http://www.vogue.com/article/fashion-exhibition-pratt-coded-couture>

This Innovative Exhibit Explores How Coding Is Used in Fashion Design, Refinery 29, February 8, 2016
<http://www.refinery29.com/2016/02/103576/pratt-coded-couture-exhibit>

Designers, Students Mesh Apparel with Technology, USNews.com, Amy Gold, December 23, 2015
<http://www.usnews.com/news/stem-solutions/articles/2015-12-23/designers-pratt-institute-students-mesh-apparel-with-technology>

Introducing Astronauts Clothing of the Future, Newsweek, Arvind Dilawar, July 2015
<http://www.newsweek.com/2015/07/17/introducing-astronaut-clothing-future-349955.html>

Tech Specs: Rebecca Pailles-Friedman, Director of Pratt's IMARI Lab, Core 77, Mason Currey, March 12, 2015
<http://www.core77.com/posts/31993/Tech-Specs-Rebecca-Pailles-Friedman-Director-of-Pratts-IMARI-Lab>

Fashion Meets Renewable Energy: Clothes That Charge Your Smartphone, The Guardian, by Amy DuFault, August 4, 2014

What Is the Future Of Fabric? These Smart Textiles Will Blow Your Mind, Forbes, by Rebecca Gaddis, May 7, 2014

Michelle Obama and Fashion Designers Show Students the Grit Behind the Glamour, Washington Post, by Robin Givhan, October 8, 2014

Drape Drape, by Hisako Sato, Reviewed December 2012

Next Big Idea: Nanotechnology and Clothing, Prattfolio: INNOVATION, by Abigail Beshkin, Summer 2011

The Chronicle of Higher Education, "Pratt's Miracle on 34th Street," by Carolyn Mooney, January 18, 2011

WWD, "Pratt Institute and Ralph Pucci's Paper Push," by David Moin,

December 9, 2010

China Daily, "East in Vogue as US Puts on the Style for Export," by Kelly Chung Dawson, November 2010

So-en, Fashion, October 2010

Collective Magazine, September 2010

Hartford Courant, "Tim Kuzmeski of Tolland Could Be Next Big Fashion Designer," July 2010

Fort Greene - The Local, "Pratt Gets a New Fashion Chairwoman," by Lily Q, June 2009

Bobbin Talk, "Pratt Institute Fashion Show 2010," May 2010

USA Weekend Magazine, "Extra Texture Gives You a Fashion Boost," May 2010

Associated Free Press, "NY Fashion Week Opens Under Shadow of McQueen Death," by Paola Messana, February 2010

ABC's "20/20 With Peter Jennings," *Product Design Segment*, 2002

LDB Interior Textiles, "Making the Retro Grade," by Karen Chambers, December 1999

Country Living "Country in the City," by Jane Dagmi, October 1999

Country Home, editorial product placement, October 1999

Youth News Network - YPress, "Designers Get Ideas from Lots of Sources," by Misty Moore and Ryan O'Neal, August 1995

Youth News Network - YPress, "The Industry Can Wear on You," August 1995