

HerWILL is democratizing Data Science for the underrepresented global women by bridging the diversity gap in the industry and academia to build the Workforce of Future

HerWILL - Women Inspired in Life and Leadership, In partnership with AI4OPT (AI Institute for Advances in Optimization), SBDH (South Big Data Hub) at Georgia Tech, and BdOSN (Bangladesh Open Source Network), has recently held a Datathon between tech women of color in the United States and tech women in Bangladesh, preceded by a series of workshops custom made to give an in-depth overview of Data Science and prepare the contestants for the intense 48-hour competition.



STORY IN NUMBERS

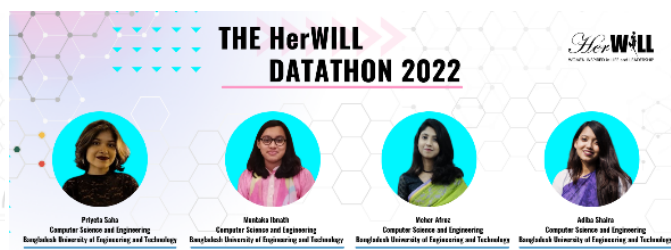
342	110	96	66	20	11	8	3
Program Participants	Datathon Contestants	Participating Universities	Cities	Worldwide Mentors	Winning Contestants	Final Teams	Winning Teams

In this unique program, women from two different corners of the world teamed up, bonded and worked on a challenging dataset to solve a real world problem provided by the AI4OPT researchers. Around 20 top Data Scientists from six countries gathered to instruct, supervise, and mentor the students for the competition. The top three winning teams collectively received \$5300 in cash prizes and are now being matched with research and internship opportunities to fill the market demand for Data Scientists.

THE PROUD WINNING TEAMS



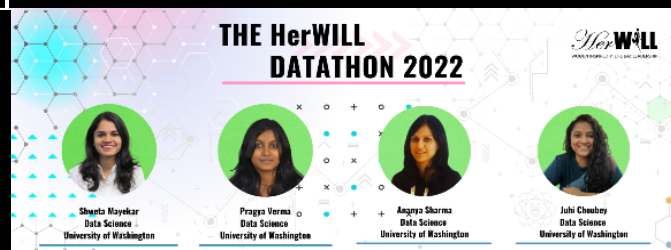
CHAMPION TEAM- POWERPUFF_GIRLS



SECOND RUNNER UP- TESSERA

WINNING UNIVERSITIES

1. Champion Team – Bangladesh University of Engineering and Technology (BUET)
2. Runnerup 1 – University of Washington
3. Runnerup 2 – BUET



FIRST RUNNER UP - HUSKIES

KEY FINDINGS



- ~50% reported average (3 on a 1-5 scale) technical skills in Data Science on pre-event survey; the ranking went up to 4 on post-event survey for the same group
- Participation from Bangladesh (60%) outweighed participations from the United States (30%)
 - Communication and program promotional pipelines could be improved in both countries, especially in the US (reach was made through the faculty)
 - Lower participation in the US directly correlate to the lower representation of women of color in tech in general, emphasizing the necessity of our program
- Participants are equally interested in learning about each other's cultures and way of life and work as the technical concepts
- In addition to the universal gender, racial, social, cultural injustices, women in Bangladesh face infrastructure and environmental issues such as electricity/wi-fi/computer malfunction, extensive heat/humidity/rain, and extraordinary traffic/commute issues that make things harder to succeed (personal essays)
- Teams participating for the second time reported having a deeper learning and a greater sense of belonging to a community of brilliant and ambitious women

TOP PARTICIPATING UNIVERSITIES

1. BRAC University
2. University of Houston – Victoria
3. BUET
4. UNC Chapel Hill
5. SUNY Old Westbury
6. Texas A&M

TOP EIGHT FINALISTS CAME FROM

1. Texas A&M University
2. University of Washington
3. BUET
4. BRAC University
5. University of Dhaka
6. University of Houston
7. University of Chittagong
8. Arizona State University
9. Shahjalal University of Science and Technology
10. Science and Technology
11. Seattle University

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GLOBAL LEADERSHIP

HerWILL's Datathon 2022 is intentionally made dynamic to meet the evolving needs of our industry and academic partners. Our model includes nine 2-hour online workshops with live instructors in group settings. Instructors are experts who provide real-life examples to bring content relevance and thus make Data Science less intimidating. 100% of the program was run virtually crossing geographic boundaries and time zone issues. Ten Data Scientists supervised the participants during the competitions from five different time zones.

HerWILL gathered global Data Science experts to educate, empower, and elevate a talented group of future Data Scientists

THE HerWILL DATATHON 2022

WOMEN INSPIRED in LIFE and LEADERSHIP

PARTNERS WITH PURPOSE

JURY



DR. Jana Hapfelmeier
Director of Medical Data Science
Vilva Healthcare GmbH



DR. Shebati Rayana
Assistant Professor
Computer & Information Sciences, SUNY OW



DR. Santona Tuli
Staff Data Scientist
Astronomer (Apache Airflow)



DR. Kevin Dalmeijer
Senior Research Associate, Georgia Tech
Managing Director, AI4OPT



DR. Pascal Van Hentlemyck
Director of NSF AI Institute for Advances in Optimization



Farhana Hasan
Founder & CEO, HerWILL



DR. Resata Rowlings- Goss
Executive Director of the South Big Data Innovation

COORDINATORS



Humam Kabir
MS Student,
Moscow Institute of Physics and Technology - MIPT



Tahiya Islam
Lead Content Writer, HerWILL
Teaching Fellow at Teach for Bangladesh



Nurjahan
Program Manager & Talent Acquisition Lead, HerWILL
Business Psychologist & HR Professional



DR. Rehab Ar Rahma
Community Outreach Lead, HerWILL
Physician & Entrepreneur

SUPERVISORS



Zifang Jiang
PhD student @ Georgia Tech
Biomedical Informatics | Machine Learning



Michael Chonowicz
Software Engineer @Vilva Healthcare
Adaptation of Data Scientific Prototypes



Espeng Yuan
PhD student @ Georgia Tech
Machine Learning Expert



Hanyu Zhang
PhD student @ Georgia Tech
Probabilistic Forecasting



Wenbo Chen
PhD student @ Georgia Tech
Machine Learning Expert



Kalyanee Maindra
Software Engineer
Datawarehouse & Business Intelligence Expert

TRAINERS & SUPERVISORS



Tanzeem Haque
HerWILL Lead for STEM Outreach & Operations
Data Engineer | DWH & BI Expert



Dr. Eda Klippmann
STEM Outreach, HerWILL
Data Scientist | Computational Biologist | Lecturer



MD. Saqib Hasan
PhD Student in Computer Science at Stonybrook University
Research Engineer BUET | Deep Learning Expert



Karlina Worf
STEM Outreach, HerWILL
Science Manager at Helmholtz AI

Custom-built project-based workshops were held to give an overview of Data Science. The courses went from basic to intermediate levels in depth subject areas to ensure success for all contestants.

WORKSHOPS LED BY THE HERWILL TEAM

- | | | |
|---|---------------------------------------|---------------------------|
| ❖ Motivation + Why Tech Support & Setup | ❖ Statistics/Descriptive Analysis (1) | ❖ Machine Learning (1) |
| ❖ Introduction into Data & Databases | ❖ Statistics/Descriptive Analysis (2) | ❖ Machine Learning (2) |
| ❖ Design Thinking by Google | ❖ Overview of Data Science Methods | ❖ Evaluation & Validation |

DATATHON DATASET CAME FROM AI4OPT TO:

- Predict hourly taxi trip requests by location to identify request patterns
- Build a prediction model to anticipate trip request surges and plan for better taxi deployment strategies

HERWILL WORKFORCE DEVELOPMENT OVERVIEW

HerWILL has developed a program that brings together project based hands-on exercises delivered by experts in various fields of Data Science, industry leaders, and academic researchers to launch and grow careers in Data Science and AI. The multi-year, multi-faceted program built a community of Data enthusiasts that will be groomed to be future leaders and matched with hard-to-reach opportunities.

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PARTNERSHIP

HerWILL and AI4OPT have entered a five-year visionary partnership to bring higher paying career and entrepreneurial opportunities for historically underrepresented communities, including the underserved global women, youth, and other diverse underemployed individuals. HerWILL's Bangladesh partner BdOSN has played a huge role in engaging the students in this successful competition.

WHAT THE WINNING TEAMS HAD TO SAY

THE HerWILL DATATHON 2022

Mashiat Mustaq
Bangladesh University of Engineering and Technology
Computer Science & Engineering

Champion Team
Power Puff Girls

Working in the competition was intense and having Supervisors the entire time was didactic. Our second competition with HerWILL, and amazed by the efforts they put into guiding us.

THE HerWILL DATATHON 2022

Shweta Mayekar
University of Washington
Data Science

First Runner Up
Huskies

“ HerWILL Datathon helped me improve my presentation skills and teamwork. As the Datathon progressed, my motivation to apply my practical knowledge and application grew beyond my expectations. ”

THE HerWILL DATATHON 2022

Meher Afroz
Bangladesh University of Engineering and Technology
Computer Science & Engineering

Second Runner Up
Tessera

“ I am really grateful to be a part of the Datathon organized by HerWILL. The mentors were very helpful and I got to learn about a lot of new things during the whole 48 hours of experience through an organized process. ”

WHY DATA SCIENCE

Women represent only 10% of the tech workforce. On the flip side, Data Science jobs are in the top five highest paying opportunities with the greatest demands for talents. Our goal is to bridge this gap in high demand and low supply of skilled talents through Data Science education, benefiting women with better economic opportunities and organizations with better talents. HerWILL's program will help talented women get recognized, trained, and certified to play a bigger role in the global tech future.

HerWILL Datathon 2022 – THE PILOT

This was a Pilot program run in the United States. HerWILL wanted to see how the disadvantaged women of color in the United States can engage in learning Data Science and participate in a competition to solve real-world problem. When placed with tech women in Bangladesh, the outcome was extraordinary that paved the path for building the Future of Work of diversity, equity, and inclusion at an international level.

ABOUT HerWILL

HerWILL, a 501(c)3 non-profit based in Atlanta, Georgia, USA, sponsors activities and coordinates community efforts in any portion of the globe to increase STEM-career opportunities for populations disadvantaged by structural gender or racial injustices, therefore contribute in achieving UN SDG5 (Gender Equality) by 2030.

With Gratitude to:

