

# Rudaiba Adnin

✉ [adnin.r@northeastern.edu](mailto:adnin.r@northeastern.edu) | 🌐 [rudaibaadnin.github.io](https://github.com/rudaibaadnin) | 🎓 [Google Scholar](#)

## Research Interests

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I am a third-year Ph.D. Student at Khoury College of Computer Sciences, Northeastern University. My research focuses on the intersection of Human-Computer Interaction (HCI) and Computer-Supported Cooperative Work (CSCW). In my doctoral research, I am studying how blind and low-vision (BLV) individuals interact with Generative AI (GenAI) tools (e.g., ChatGPT, Be My AI). I am also designing and developing learning tools that support BLV individuals. Previously, I worked on projects involving non-profit organizations and online learning. My work has been published in top HCI venues, including CHI, CSCW, and ASSETS.

## Education

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- **Ph.D. in Computer Science** Boston, MA, USA  
Khoury College of Computer Sciences, Northeastern University Sept 2023 – May 2028 (expected)
  - Advisor: Prof. Maitraye Das
- **M.S. in Computer Science** Boston, MA, USA  
Khoury College of Computer Sciences, Northeastern University Sept 2023 – Aug 2025
  - Advisor: Prof. Maitraye Das
- **B.Sc. in Computer Science and Engineering** Dhaka, Bangladesh  
Bangladesh University of Engineering and Technology (BUET) Feb 2016 – Mar 2021
  - Advisor: Prof. A. B. M. Alim Al Islam

## Experience

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- **Research Assistant** Boston, MA, USA  
[Technology, Equity, and Accessibility \(TEA\) Lab](#), Northeastern University Mar 2023 – Present
  - Studying, designing, and developing learning tools for blind and low-vision students with Prof. Maitraye Das (Advisor) and Prof. Abir Saha (Collaborator). Published two papers on the use of GenAI in CHI 2025 and ASSETS 2024; submitted a recent paper to CHI 2026.
  - Ideated and prototyped four learning tools using Figma; implementation completed of one tool; currently conducting user evaluations.
- **Research Intern** Remote  
[UNAR Labs](#) Summer 2025
  - Collaborated with Dr. Hari Prasath Palani (Mentor) on studying, prototyping, and evaluating two STEM learning tools for blind and low-vision students; co-authored two papers that are accepted at OzCHI 2025 and BCS HCI 2025.
- **Teaching Assistant** Boston, MA, USA  
Khoury College of Computer Sciences, Northeastern University Spring 2025, Fall 2025

- CS 5340 (Human-Computer Interaction), Fall 2025: Guiding and mentoring students in projects, interface design, and evaluation; teaching interface prototyping with Figma; grading coursework.
- CS 6350 (Empirical Research Methods), Spring 2025: Guided and mentored students in designing and conducting user studies; graded coursework.
- **Research Collaborator** Dhaka, Bangladesh  
 Next-generation Computing (NeC) Group, BUET Aug 2020 – Aug 2023
  - Collaborated with Prof. A.B.M. Alim Al Islam (BUET), Prof. Sriram Chellappan (USF), Prof. Sadia Sharmin (BUET), Prof. Anindya Iqbal (BUET), and Prof. Rezwana Reaz (BUET) on several research projects.
- **Database Engineer** Dhaka, Bangladesh  
 Therap BD Ltd. Mar 2021 – Jul 2023
  - Developed and tuned SQL queries; maintained Oracle RAC databases with up-to-date patches; automated DBA workflows by implementing scripts using Shell Script, Python, and Java; conducted R&D on Oracle Cloud, Gold-engage, SQLTxlplain, and DBSAT; trained junior engineers on database modules and related software.

## Peer-reviewed Publications

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### Use of Generative AI

- [P11] **Rudaiba Adnin**, Atharva Pandkar, Bingsheng Yao, Dakuo Wang, and Maitraye Das. 2025. Examining Student and Teacher Perspectives on Undisclosed Use of Generative AI in Academic Work. *In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI '25)* (Acceptance rate: 25.1%) | [DOI](#) | [PDF](#)
- Participants: University students and instructors; Methods: Mixed-method study with online survey and interviews; Analysis: Statistical analysis and reflexive thematic analysis; Tech: Pandas, NumPy, Plotly.*
- [P10] **Rudaiba Adnin** and Maitraye Das. 2024. "I look at it as the king of knowledge": How Blind People Use and Understand Generative AI Tools. *In Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '24)* (Acceptance rate: 30%) | [DOI](#) | [PDF](#)
- Participants: Blind people; Methods: Interview study; Analysis: Reflexive thematic analysis.*
- [P9] Hari Prasath Palani, **Rudaiba Adnin**, and Shivangee Nagar. 2025. Kanak: Automating the Generation of Accessible STEM Materials for Blind and Low-vision Students. *In Proceedings of the 37th Australian Conference on Human-Computer Interaction (OzCHI '25)* | [PDF](#)
- Participants: Braille transcribers and teachers of visually impaired; Methods: Within-subject user study; Analysis: statistical analysis and reflexive thematic method; Artifact: Kanak tool; Tech: ReactJs, NodeJs.*

### Underrepresented Groups

- [P8] **Rudaiba Adnin**, Ishita Haque, Sadia Afroz, Alvi Md. Ishmam, Sakil Sarkar, Md. Kafi Khan, Afsana Mimi, Sriram Chellappan, and A. B. M. Alim Al Islam. 2023. Focusing on the Unfocused: Corresponding Perspectives on Connectivity among Small-scale Non-profit Organizations Working for Street Children in Bangladesh and Their Donors. *In Proceedings of the 7th ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS '24)* | [DOI](#) | [PDF](#)
- Participants: Organizers and general people; Methods: Mixed-method study with online survey and interviews; Analysis: Statistical analysis and thematic analysis; Tech: Pandas, NumPy, Plotly.*

- [P7] **Rudaiba Adnin**, Ishita Haque, Sadia Afroz, Alvi Md. Ishmam, and A. B. M. Alim Al Islam. 2022. Investigating Human Factors in Willingness to Donate to the Small-scale Non-profit Organizations in Bangladesh. In *Companion Publication of the 2022 Conference on Computer Supported Cooperative Work and Social Computing (CSCW '22 Companion)* | [DOI](#) | [PDF](#)

*Participants: General people; Methods: Online survey and interviews; Analysis: Statistical analysis; Tech: Pandas, NumPy, Plotly.*

- [P6] **Rudaiba Adnin**, Sadia Afroz, Muhtasim Ulfat, and Anindya Iqbal. 2022. A Hiring Story: Experiences of Employers in Hiring CS Graduates in Software Startups. In *Companion Publication of the 2022 Conference on Computer Supported Cooperative Work and Social Computing (CSCW '22 Companion)* | [DOI](#) | [PDF](#)

*Participants: Employers of software startups; Methods: Interview study; Analysis: Thematic analysis.*

### AI Chatbot

- [P5] Md Ehtesham-Ul-Haque, Jacob D'Rozario, **Rudaiba Adnin**, Farhan Tanvir Utshaw, Fabiha Tasneem, Israt Jahan Shefa, and A. B. M. Alim Al Islam. EmoBot: Artificial emotion generation through an emotional chatbot during general-purpose conversations. *Cognitive Systems Research* | [DOI](#) | [PDF](#)

*Participants: People of all ages; Method: Implementation, user evaluation; Data: Survey, interaction trace; Analysis: Statistical analysis; Artifact: Chatbot, questionnaire.*

### Online Abuse and Privacy

- [P4] 🏆 Ishita Haque, **Rudaiba Adnin**, Sadia Afroz, Faria Huq, Sazan Mahbub, Sami Azam, and A. B. M. Alim Al Islam. 2022. Citadel: An Automated Abuse Detection System to Detect And Prevent Abusive Behaviors over Emails. In *Proceedings of the 9th International Conference on Networking, Systems and Security (NSysS '22)* (Acceptance rate: 27%) | [DOI](#) | [PDF](#)

*Runner-up Paper Award*

*Participants: Frequent email users; Method: 3-day field study; Data: Interaction trace, Survey; Analysis: Statistical analysis; Artifact: Chrome extension, Questionnaire; Tech: Tensorflow, Pandas, Django, Javascript, SQLite, Inkscape, Plotly.*

- [P3] 🏆 Ishita Haque, **Rudaiba Adnin**, Sadia Afroz, Faria Huq, Sazan Mahbub, and A. B. M. Alim Al Islam. 2021. "A Tale on Abuse and Its Detection over Online Platforms, Especially over Emails": From the Context of Bangladesh. In *Proceedings of the 8th International Conference on Networking, Systems and Security (NSysS '21)* (Acceptance rate: 16.67%) | [DOI](#) | [PDF](#)

*Best Paper Award*

*Participants: Frequent email users; Methods: Mixed-method study with online survey and interviews; Analysis: Statistical analysis and thematic analysis; Tech: Pandas, NumPy, Plotly.*

### Online Learning

- [P2] **Rudaiba Adnin**, Sadia Afroz, and Sadia Sharmin. 2022. Note: Learn Online: High School Students' Adoption of Online Learning in Bangladesh during COVID-19 Pandemic. In *Proceedings of the 5th ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS '22)* | [DOI](#) | [PDF](#)

*Participants: High-school students; Methods: Interview study; Analysis: Thematic analysis.*

## Disease Outbreaks

- [P1] S Mahmudul Hasan, Alabi Mehzabin Anisha, **Rudaiba Adnin**, Ishrat Jahan Eliza, Ishika Tarin, Sadia Afroz, and A. B. M. Alim Al Islam. 2022. Revealing Influences of Socioeconomic Factors over Disease Outbreaks. In *Proceedings of the 5th ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS '22)* | [DOI](#) | [PDF](#)

Artifact: Scraped Data; Correlation analysis: Pearson and Spearman correlation; Tech: Pandas, Numpy, Scikit-learn, NetworkX.









## Awards & Scholarships

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- Khoury Distinguished Fellowship 2023  
Northeastern University
- Runner-up Paper Award  2022  
International Conference on Networking, Systems and Security (NSysS '22)
- Registration Waiver Grant 2022  
ACM COMPASS 2022
- Best Paper Award  2021  
International Conference on Networking, Systems and Security (NSysS '21)
- University Merit Scholarship (Level 4) 2020  
Bangladesh University of Engineering and Technology (BUET)
- BUET Admission Test Scholarship 2016  
Bangladesh University of Engineering and Technology (BUET)
- National Higher Secondary School Merit Scholarship 2015  
Government of Bangladesh
- National Secondary School Merit Scholarship 2013  
Government of Bangladesh
- Primary School Merit Scholarship 2007  
Government of Bangladesh

## Skills

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-  **User Research:** Semi-structured interviews, Surveys, Field studies
-  **Analysis:** Open Coding, Thematic Analysis, Reflexive Thematic Coding, Significance Tests, Correlation, Regression
-  **Languages:** Python, PHP, C++, JavaScript, SQL, Bash, Java
-  **Prototyping:** Figma, Javascript, HTML, CSS
-  **Frameworks:** ReactJS, Flask, NodeJs, Django, Laravel, Tensorflow, Pandas, NLTK, Numpy, Scikit-Learn, Plotly
-  **Tools:** LLM-APIs, Docker, Git, Oracle, MySQL, SQLite, Wireshark, Android Studio, MATLAB, Logisim, Inkscape
-  **Platforms:** Linux, Windows
-  **Other Skills:** Leadership, Communication, Time Management, Detail Oriented

## Selected Academic Projects

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- **LessonA11y** [[url](#), [video demo](#), [github](#)]

*Prototyped a web-based tool to support TVIs in lesson planning, making materials accessible, and staying informed about relevant tools and software. Participants: Teachers of the visually impaired; Tech: HTML, Bootstrap.*

- **Kanbas** [[github](#)]

*Implemented an online learning portal where teachers can add learning modules, assignments, and quizzes for students. Participants: Students, Teachers; Tech: React, Node.js, MongoDB.*

- **eCommerce MarketPlace** [[documentation](#)]

*Developed an eCommerce website for buying and selling products. Vendors could add new products and customers could purchase them. Participants: Vendors, customers; Documentation: UML diagram, ERD; Tech: Laravel, MySQL, JavaScript.*

- **Library Management System** [[github](#)]

*Built a library management system where members can borrow books, and the admin manages the database of books and members. Participants: Admin, Library members; Tech: Oracle, JavaFX.*

- **Two Mode Car: Obstacle Avoiding Automated and Remote Control Car** [[video](#)]

*Implemented a two-mode car with remote control functions and automation. The car avoids obstacles while moving in automation mode. Tech: Atmega32, Sonar sensor, DC motor.*

## Other Experiences

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- **Presenter** [[YouTube Playlist](#)]

*CHI 2025, ASSETS 2024, ACM COMPASS 2023, ACM COMPASS 2022, CSCW 2022, HCII 2022, NSysS 2022, NSysS 2021*

- **Reviewer**

*CHI 2025, CHI 2024, ACM COMPASS 2025, ACM COMPASS 2024, ACM COMPASS 2023, CSCW 2025, CSCW 2023, CSCW 2022*

- **Student Volunteer**

*ASSETS 2024, ACM COMPASS 2023*

- **Member**

*ACM Student Member, [BSCSE \(Bangladeshi Women in Computer Science and Engineering\)](#)*

- **Mentor**

*Mentored two graduate and six undergraduate students in research projects.*

- **Tutor**

*Tutored 9th–12th grade students for five years.*

## References

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- **Maitraye Das** Boston, MA, USA  
Assistant Professor, Khoury College of Computer Sciences, Northeastern University  
◦ Email: [ma.das@northeastern.edu](mailto:ma.das@northeastern.edu), Web: [maitraye.github.io](http://maitraye.github.io)
- **Abir Saha** Boston, MA, USA  
Assistant Teaching Professor, Khoury College of Computer Sciences, Northeastern University  
◦ Email: [ab.saha@northeastern.edu](mailto:ab.saha@northeastern.edu), Web: [abirsaha.com](http://abirsaha.com)
- **Hari Prasath Palani** Portland, ME, USA  
Founder and CEO at UNAR Labs  
◦ Email: [hari.palani@unarlabs.com](mailto:hari.palani@unarlabs.com), Web: [people/hari-palani](http://people/hari-palani)
- **Sriram Chellappan** Tampa, FL, USA  
Professor, Department of Computer Science and Engineering, University of South Florida  
◦ Email: [sriramc@usf.edu](mailto:sriramc@usf.edu), Web: [cse.usf.edu/sriramc](http://cse.usf.edu/sriramc)
- **A.B.M. Alim Al Islam** Dhaka, Bangladesh  
Professor, Department of Computer Science and Engineering, BUET  
◦ Email: [alim\\_razi@cse.buet.ac.bd](mailto:alim_razi@cse.buet.ac.bd), Web: [sites.google.com/site/abmalimalislam](http://sites.google.com/site/abmalimalislam)