SABID BIN HABIB PIAS

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EDUCATION

Indiana University Bloomington *August 2019-December 2024 (Expected)*
Ph.D. in Computer Science

· **Research Interest**: Human-centered AI, Explainable AI, Trustworthy AI, Resposible AI, Machine Learning

Indiana University Bloomington *August 2019-May 2024*
M.S. in Computer Science

Bangladesh University of Engineering and Technology *Graduated March 2016*
Bachelor of Science in Computer Science & Engineering

PROFESSIONAL EXPERIENCE

Indiana University Privacy Lab *August 2019 - Present*
Graduate Research Assistant

Idaho National Laboratory *June 2023 - August 2023*
Python Programmer Intern

Field Buzz (Dhaka, Bangladesh) *January 2017 - May 2019*
Software Engineer

TECHNICAL SKILLS

Languages and Frameworks	Python, R, Javascript, PyTorch, PyQt, Flask, LIME, SHAP
Statistical Analyses	Regression, Mixed Effect Model, Factor Analysis, Correlation, ANOVA
Other	Git, Shell, Latex, Qualtrics, Overleaf, Zotero, SQLite, REST, Maven

SELECTED RESEARCH EXPERIENCE

Indiana University Privacy Lab
Mentor: *Dr. Apu Kapadia*

- **Impacts of Vocal Tone on the Persuasiveness of Voice Assistants (VA)**: Assessed the impact of voice assistant (VA) vocal attributes on user engagement in online shopping, identifying one user group that finds a positive tone persuasive and comfortable, while another group prefers a neutral voice for intricate tasks. Results advocate for customizable VA voices to boost user comfort and engagement. This research has been accepted for presentation at ACM Conversational User Interface (CUI 2024).
- **Bitrotting Photos for Enhanced Privacy**: Proposed two temporal redaction methods for enhancing privacy in photo sharing; evaluated the proposed methods in a user study, where 17-21% participants preferred for 'non-sensitive' photos. Published and presented the paper at ACM CSCW 2022 (**PDF**)
- **Personality and Explainability: Detailed Explanations Can Reduce Agreement with XAI**: Conducted experimental study revealing that user acceptance of AI decisions varies by personality and tech comfort, suggesting tailored explainable AI (XAI) designs that omit explanations for users with high neuroticism and low technology comfort to enhance collaboration. This work got accepted for an oral presentation at the ACM CHI 2024 workshop on Human-Centered Explainable AI (HCXAI).
- **Assessing Trust Dynamics in Human-AI Collaboration**: Designed a study to investigate the impact of mistake severity and timing on user trust in high-stakes AI systems, suggesting that errors in critical scenarios erode trust regardless of timing, while late errors in less severe contexts are more detrimental. This work has been accepted for a talk at the workshop for Trust and Reliance in Evolving Human-AI Workflows at ACM CHI 2024.

SELECTED INDUSTRY EXPERIENCE

Idaho National Laboratory
Mentor: *Dr. Cody Walker and Dr. Linyu Lin*

- **Explainable AI (XAI) in Power Plant Fault Prediction**: Designed an Explainable AI prototype interface enhancing user interpretability with visual insights; optimized water pump fault prediction using ML techniques (Random Forest, SVM) on imbalanced data(Python, LIME, SHAP, PyQT) (**Poster**)

Field Buzz
Mentor: *Habib Ullah Bahar*

- Collaborated with consultants to extract technical requirements; Produced extensive technical reports
- Built data integrity library with an offline data sync mechanism (Android, SQLite, REST)(**Playstore**)

SELECTED ACADEMIC PROJECTS

- **Animal Detection from Images**: Designed CNN based architectures and used transfer learning with EfficientDet-D7 for detecting animals from an image subset of 'Open Image Dataset V6' (**Notebook**)
- **Music Genre Classification from Waveform Audio**: Designed and compared CNN, RNN and Transfer Learning based architectures for music genre classification on 'GTZAN' dataset (**Notebook**)
- **Acoustic Event Detection**: Explored varying fine-tuning based Transfer Learning schemes for Acoustic event classification from 'Google Audioset' embeddings (**Notebook**)

PUBLICATIONS

- **Sabid Bin Habib Pias**, Imtiaz Ahmad, Taslima Akter, Adam J. Lee, and Apu Kapadia. Decaying Photos for Enhanced Privacy: User Perceptions Towards Temporal Redactions and 'Trusted' Platforms. In *ACM Conference On Computer-Supported Cooperative Work, CSCW 2022*
- **Sabid Bin Habib Pias**, Ran Huang, Donald Williamson, Minjeong Kim, and Apu Kapadia. The Impact of Perceived Tone, Age, and Gender on Voice Assistant Persuasiveness in the Context of Product Recommendations. In *ACM Conference on Conversational User Interface, CUI 2024*
- **Sabid Bin Habib Pias**, Alicia Freel, Timothy Trammel, Taslima Akter, Donald Williamson, and Apu Kapadia: The Drawback of Insight: Detailed Explanations Can Reduce Agreement with XAI In *ACM CHI Workshop on Human Centered Explainable AI, CHI 2024*
- Alicia Freel, **Sabid Bin Habib Pias**, Selma Sabanovic, Apu Kapadia: Navigating Trust Erosion in Human-AI Collaboration: Unpacking the Impact of Severity and Timing in Misclassification In *ACM CHI Workshop on Trust and Reliance in Evolving Human-AI Workflows, CHI 2024*

SCHOLARSHIPS AND AWARDS

- **Luddy Research Excellence Award** 2023-24
- **Cognizant Trust and Safety Scholarship** 2023-24
- **Best Undergraduate Database Systems Project**, CSE, BUET 2014

ACADEMIC SERVICES

- **Program Committee (PC) Member** EuroUSEC 2024
- **Papers Peer Review** CUI 2023*, CHI 2024*, CHI LBW 2024
  CSCW 2024, IMX 2024, DIS 2024, CUI 2024

*Special recognition for outstanding review

- **ACM SIGCHI Student Member** 2020-Current
- **Mentoring Junior Co-chair** SOUPS 2023

- **Undergraduate Research Mentoring** 2022-23, 2023-24
- **Student Volunteer** CHI 2024, CSCW 2023, CHI 2022, CSCW 2022
- **Papers Subcommittee Student Volunteer**, Security and Privacy CHI 2022

LEADERSHIP EXPERIENCES

- **Luddy Graduate Student Ambassador**, Indiana University 2022- Present
- **Vice President**, Bangladesh Student Association, Indiana University 2021- 2022
- **Graduate Student Representative**, Luddy School, Indiana University 2021- 2022
- **Organising Member**, Laboratorian Association of BUET 2014-15

REFERENCES

- **Dr. Apu Kapadia**
  Professor
  Department of Computer Science
  Luddy School of Informatics, Computing, and Engineering
  Indiana University
  Email: kapadia@indiana.edu
- **Dr. Minjeong Kim**
  Professor
  Merchandising Department
  Eskenazi School of Arts, Architecture and Design
  Indiana Univeristy
  Email: kim2017@indiana.edu
- **Dr. Cody Walker**
  Research Scientist
  Instrumentation, Control and Data Science
  Idaho National Laboratory
  Email: cody.walker@inl.gov
- **Dr. Donald Williamson**
  Assistant Professor
  Department of Computer Science and Engineering
  Ohio State University
  Email: williamson.413@osu.edu