# 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 , Responsible AI , Machine Learning , Usable Security

**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, OpenAI API

### 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 won the **best paper award** at ACM Conversational User Interface (CUI 2024). [PDF]
- 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 '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). [PDF]
- 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.

- Effects of Vocal Tone on The Trustworthiness of Voice Assistants: Explored the impact of vocal characteristics, such as vocal tone, on the attractiveness and trustworthiness of Voice Assistants (VAs) for complex tasks like online shopping. Found that VAs with positive or neutral tones were perceived as more attractive and trustworthy, concluding that VA trustworthiness can be improved through thoughtful voice design with varied tones.
- Assessing ChatGPT-Generated Privacy Nudges in Social Media Decision-Making: We assess the impact of ChatGPT-generated privacy nudges on users' meme-sharing decisions on social media, focusing on preserving personal and others' privacy through experiments with consequence, incentive, informed, and feedback nudges.

### 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, 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 (Best Paper)
- 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, HCXAI@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, TREW@CHI 2024
- 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

#### SCHOLARSHIPS AND AWARDS

• Best Paper Award

2024

ACM Conversational User Interface

• Luddy Research Excellence Award

• 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'23\*, CHI'24\*, CHI LBW'24, CSCW'24, SOUPS'24

EuroUSEC'24, IMX'24, DIS'24, CUI'24, UIST'24, CSCW'25

\*Special recognition for outstanding review

• Mentoring Junior Co-chair

**SOUPS 2023** 

• Undergraduate Research Mentoring

2022-23, 2023-24, 2024-25

• Student Volunteer

CHI 2024, CSCW 2023, CHI 2022, CSCW 2022

• Papers Subcommittee Student Volunteer, Security and Privacy

CHI 2022

• ACM SIGCHI Student Member

2020-Current

### 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 University

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