

Arpita Chowdhury

 [arpita-chowdhury-osu.github.io](https://github.com/arpita-chowdhury-osu) |  chowdhury.150@osu.edu |  Google Scholar

EDUCATION

- **The Ohio State University** 2021 - 2027 (Expected)
Columbus, OH
 - Research interest: *Efficient Multimodal LLM, Robust Interpretable Foundation Model Adaptation, Explainable AI.*
 - Ph.D. in Computer Science and Engineering
 - Advisor: [Prof. Wei-Lun \(Harry\) Chao](#)
- **University of Dhaka,** 2015 - 2019
B.Sc. in Software Engineering Dhaka, Bangladesh

PUBLICATIONS

* DENOTES EQUAL CONTRIBUTIONS AND CO-FIRST AUTHORSHIP.

Conferences

- [C.1] **Arpita Chowdhury**, Dipanjyoti Paul, Zheda Mai, Jianyang Gu, Ziheng Zhang,..., Yu Su, Wei-Lun Chao. [PROMPT-CAM: Making Vision Transformers Interpretable for Fine-Grained Analysis](#). **CVPR, 2025.**
- [C.2] Ziheng Zhang*, Jianyang Gu*, **Arpita Chowdhury**, Zheda Mai, David Carlyn, Tanya Berger-Wolf, Yu Su, Wei-Lun Chao, [Finer-CAM: Spotting the Difference Reveals Finer Details for Visual Explanation](#). **CVPR, 2025.**
- [C.3] Zheda Mai*, **Arpita Chowdhury***, Ping Zhang*, Cheng-Hao Tu, Hong-You Chen, Tanya Berger-Wolf, Song Gao, Charles Steward, Yu Su, Wei-Lun Chao. [Fine-Tuning is Fine, if Calibrated](#). **NeurIPS, 2024.**
- [C.4] Dipanjyoti Paul, **Arpita Chowdhury**, Xinqi Xiong, Feng-Ju Chang, ... , Yu Su, Wei-Lun Chao, [A Simple Interpretable Transformer for Fine-Grained Image Classification and Analysis](#). **ICLR, 2024.**
- [C.5] Jihyung Kil*, Zheda Mai*, Justin Lee, **Arpita Chowdhury**, Zihe Wang, Kerrie Cheng, Lemeng Wang, Ye Liu, Wei-Lun Chao. [CompBench: A Comparative Reasoning Benchmark for Multimodal LLMs](#). **NeurIPS, 2024.**

Journal[peer-reviewed]

- [J.1] Ahmed Abdelbaki, Ziwei Li, Tai-Yu Pan, Justin Lee, **Arpita Chowdhury**, ..., Wei-Lun Chao, Somashekar G. Krishna. [Artificial Intelligence Advances Digital Pathomics for Confocal Endomicroscopy Diagnosis of Pancreatic Cysts.](#), Techniques and Innovations in Gastrointestinal Endoscopy, 2025.
- [J.2] [Intracystic capillary morphology as a novel approach to risk stratification of IPMNs in confocal endomicroscopy](#), Gastroenterology, 2025.

Workshop

- [W.1] Zhenyang Feng, Zihe Wang, ... , **Arpita Chowdhury**, ... , Wei-Lun Chao. [Static Segmentation by Tracking: A Frustratingly Label-Efficient Approach to Fine-Grained Segmentation](#), **CVPR workshops, 2025**

Under Review

- [U.1] Zheda Mai*, **Arpita Chowdhury***, Zihe Wang, Lemeng Wang, Sooyoung Jeon, Wei-Lun Chao. [AVA-Bench: Atomic Visual Ability Benchmark for Vision Foundation Models](#), 2025
- [U.2] Dipanjyoti Paul*, **Arpita Chowdhury***, Ziheng Zhang, Daichi Kitaguchi, Tanya Berger-Wolf, Tetsuya Sakurai, Wei-Lun Chao. [INTR-AI: INTERpretable TRANSformers Reconciling Accuracy and Interpretability](#), 2025
- [U.3] Sooyoung Jeon , Zheda Mai, Hongjie Tian, Vidhi Bakshi, Lemeng Wang, Jiacheng Hou, Ping Zhang, **Arpita Chowdhury**, Wei-Lun Chao. [Continually Adapt or Not \(CAN\)? A Continual Learning Benchmark of Camera Trap Species Classification over Time](#), 2025.
- [U.4] **Arpita Chowdhury**, Shweta Mahajan, Munawar Hayat. [GroundedOCR: Joint Object-Text Grounding in Natural Scenes](#), 2025
- [U.5] Ziheng Zhang, Xinyue Ma, **Arpita Chowdhury**, ... , Tanya Berger-Wolf, Yu Su, Wei-Lun Chao, Jianyang Gu. [BioCAP: Exploiting Synthetic Captions Beyond Labels in Biological Foundation Models](#), 2025

INDUSTRY EXPERIENCE

- **Qualcomm** June 2025 - August 2025
Research Internship, Full-time San Diego, USA
 - Developed a unified framework for multimodal reasoning and understanding in natural scenes.

- **Samsung Research and Development Institute** January 2019 - August 2019
Dhaka, Bangladesh
Backend Software Engineer, Full-time
 - Led the deployment, and maintenance of robust databases using Node.js and SQL, across multiple projects.
 - Partnered closely with front-end teams delivering demos to showcase project advancements.
- **Samsung Research and Development Institute** January 2018 - June 2018
Dhaka, Bangladesh
Intern Software Engineer, Full-time
 - Engineered a secure, robust SQL Server database engine with Node.js.
 - Developed an Android P2P chat app featuring movement-based gesture detection.
- **Softcell Solution Limited** August 2016 - October 2016
Dhaka, Bangladesh
Software Requirements Engineer, Part-time
 - Led weekly client meetings to ensure software requirements aligned with project goals.
 - Translated functional and data requirements into detailed data flow diagrams, class, and data models.

RESEARCH EMPLOYMENT

- **Computer Science & Engineering, The Ohio State University** May 2023 - Present
Columbus, OH
Graduate Research Assistant
 - **The Ohio State University Medical Center**
 - * Working on developing 2D detection and segmentation models for pancreas neoplasia (medical imaging)
 - * Working on developing Few-shot Video Object Segmentation models to enhance early detection of pancreatic cancer (medical imaging)
 - **Imageomics Institute**
 - * Developed an algorithm to localize trait-specific regions in fine-grained classification.
 - * Working on models for trait tracking in fine-grained species classification. (wildlife)
 - * Working on language-guided models for fine-grained wildlife segmentation. (wildlife)

MENTORSHIP & TEACHING

- **Main Instructor, The Ohio State University** Semester: Fall 2023
 - CSE 2221: Software I: Software Components
- **Graduate Teaching Assistant, The Ohio State University** Semester: Summer 2023
 - CSE 2221: Software I: Software Components
- **Head Graduate Teaching Assistant, The Ohio State University** Semester: Spring 2023
 - CSE 2111: Modeling and Problem Solving with Spreadsheets and Databases
- **Graduate Teaching Assistant, The Ohio State University** Semester: Fall 2021
 - CSE 3341: Principles of Programming Languages

SKILLS

- **Programming Languages:** Python, C++, JavaScript, Bash, R
- **Machine Learning Tools:** PyTorch, Huggingface, NumPy, Pandas, SciPy, scikit-learn
- **Other Tools & Technologies:** Git, Docker, SQL, Node.js, Android Development

SERVICE

- **Conference Reviewer:** CVPR'25, ICCV'25, AAAI'24, NeurIPS'25, WACV'25
- **Volunteer Judge and mentor:** OSU Artificial Intelligence Hackathon: 2023, 2024