# Bich Ngoc (Rubi) Doan

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## Education

**EPFL**                                                                                          09/2024 – present
*M.S. in Digital Humanities*                                                         Lausanne, Switzerland
  **Relanvant Courses**: *Applied Data Analysis, Introduction to Natural Language Processing, Modern Natural Language Processing, Computational Social Media.*

**KAIST**                                                                                         08/2019 – 08/2024
*B.S. in Computer Science and Business-Technology Management*             Daejeon, South Korea
  **Relevant Courses:** *Introduction to Social Computing, Human-AI Interaction, Machine Learning, Computer Vision, Operating System, Computer Organization.*

**University of Twente**                                                                    02/2023 – 07/2023
*Exchange in Creative Technology*                                               Enschede, Netherlands
  **Relevant Courses:** *Data-Driven Application, Data Visualization, Hybrid Worlds Project*

## Research Experience

**Collaborative Social Technologies Lab @KAIST**                             09/2023 – 09/2024
*Project: Developing Content Moderation Tool for Integrating Restorative Justice into Online Spaces.*
  • Built a fully functional Discord bot that facilitates communication among stakeholders (victim, offender, moderator) when harm occurs, deriving from restorative justice principles.
  • Employed the bot in active Discord communities, supported participants within the experiment period, and carried out exit interviews to extract insights into design implications for future restorative justice tools.
  • Published the work as a long-form paper to be appeared in CHI 2025

**Interactive Computing Lab @KAIST**                                            06/2022 – 08/2022
*Project: Pro-active Smart Speaker System*
  • Integrated Pose Estimation into the system's data collection module. Trained and deployed the model using Google API, ensuring seamless incorporation into pre-existing legacy codebases.
  • Conducted in-depth research into potential applications of the model within the existing system.

**Collaborative Distributed Systems & Networks Lab @KAIST**                 01/2022 – 06/2022
*Project: OctoFedS, a Federated Split Learning System for Object Detection at the Edge.*
  • Implemented primary parts of OctoFedS. Intergrated YOLOv3 detection model distributedly and achieved nearly 92% mean average precision compared to the traditional training method with a centralized dataset.
  • Carried out research, experiments, and analysis to highlight optimal performance points and explore potential use cases.
  • Published a paper and presented the poster at KCC 2022.

## Publications

**The Design Space for Online Restora- tive Justice Tools: A Case Study with ApoloBot**
*ACM CHI 2025*
  **Bich Ngoc Doan**, Joseph Seering

**OctoFedS: A Federated Split Learning System for Object Detection at the Edge**
*Korea Computer Congress 2022*
  **Bich Ngoc Doan,** Thanh Tung Nguyen, Dongman Lee

## Industry Experience

**Rakuna** 01/2020 – 06/2020
*Full-stack Software Engineer*
  • Developed responsive web pages and features for HR-solution software used by more
  than 300 partner businesses.
  • Collaborated with the Design team to create a Design Guideline that revamps UI design
  and integrates coding instructions.
  • Migrated 40% of the legacy code base to a large-scale framework, creating reusable
  modules and components while updating documentation

## Certificates

**Become a User Experience Designer**
  LinkedIn Learning

## Skills

**Programming**
  Python, Javascript,
  Ruby, C, HTML/CSS

**Framework**
  PyTorch, Tensorflow,
  Ruby on Rails, Material-
  UI

**Data Analysis**
  SciPy, NumPy, scikit-
  learn, pandas

## Projects

**From Classroom to Screen**
*Fall 2024, Applied Data Analysis*
  [code ⬀ • data story ⬀ ] A data-driven approach to understand the rise of Indian STEM content on Youtube

**CodeXplorer**
*Fall 2023, Human-AI Interaction*
  [code ⬀ • video ⬀ ] An AI-assisted system for comprehending and navigating large codebases

**The Cost of (Fast) Fashion**
*Spring 2023, Hybrid Worlds Project*
  [document ⬀ • video ⬀ ] A visualization and physicalization of the ecological impact of the (fast) fashion industry,
  including carbon emissions, working conditions, and textile waste. Received "Storytelling Award"

**ClefClub**
*Fall 2021, Introduction to Social Computing*
  [code ⬀ • prototype ⬀ • video ⬀ ] A web/app platform for crowd-sourced music generation and collaboration.
  Received "Best Demo Award"

## Grants and Scholarships

**KAIST Undergraduate Scholarship**
  Full tuition fee and 16,800,000 KRW stipend (12,367 USD)

**KAIST Undergraduate Research Program (URP) Spring 2024**
  Research grant of 5,000,000 KRW (3,681 USD)

**KAIplus Undergraduate Scholarship**
  Need-based scholarship offered to international undergraduate students