MD TANVIR ISLAM

tanvirnwu@g.skku.edu — (82) 010-2845-4666 — LinkedIn — Google Scholar
Suwon-si, Gyeonggi-do, Republic of Korea

EDUCATION

Sungkyunkwan University, Suwon-si, Republic of Korea   Feb 2023 - Feb 2025 (Expected)
Masters of Science in Computer Science and Engineering   **CGPA 4.25/4.50**
Thesis title: HazeSpace2M: A Dataset for Haze Aware Single Image Dehazing.

Pai Chai University, Daejeon, Republic of Korea   March 2022 - Feb 2023
Korean Language Training   **TOPIK Level 4**
Studied Korean Language and Culture till level 4 and certified by Pai Chai University.

North Western University, Khulna, Bangladesh   Jan 2015 - Jan 2019
Bachelor of Science in Computer Science and Engineering   **CGPA 3.98/4.00**
Thesis title: Diabetes Mellitus Prediction using Machine Learning Techniques.

RESEARCH EXPERIENCE

VIS2KNOW Lab   Seoul, Republic of Korea
Research Assistant   July 2023 – Ongoing
- Lead data curation and analysis for research on AI-synthesized image detection, single image dehazing, and low-light image enhancement.
- Developed algorithms and frameworks for single image dehazing and detecting AI-synthesized images, contributing to advancements in image forensics and quality improvement.
- As the outcome of the research, our 5 papers are now under review by top-tier international journals and conferences such as ACM MM, ACCV, AEJ, EAAI, and IEEE Access.

CSHI-RLab   Khulna, Bangladesh
Research Assistant   July 2018 – Aug 2021
- Collected real-life datasets to perform research using various machine-learning techniques and **published several papers** at different international conferences, which achieved around **100 citations** so far.

TEACHING EXPERIENCE

Department of AI (Sungkyunkwan University)   Seoul, Republic of Korea
Teaching Assistant   July 2024 – Ongoing
- Assisted professors with curriculum planning and preparation for undergraduate and graduate AI courses
- Held office hours to support and mentor students, addressing their academic queries and concerns.
- Facilitated group discussions and study sessions to enhance student collaborative learning.

South-East Engineering College (Affiliated by Rajshahi University)   Khulna, Bangladesh
Lecturer (part-time)   Jan 2019 - Dec 2020
- Lecture planning, preparation, and presentation.
- Checking and assessing students' assignments
- Keep in touch with other teachers and students

RESEARCH PUBLICATIONS   More: Google Scholar

Journal Papers: AEJ (**IF: 6.8, Q1**), EAAI (**IF: 8.0, Q1**), IEEE Access (**IF: 3.9, Q1**) (On review)   Total: 3
Conference Papers: ACCV'24, ACM MM'24 (On review), ICICC, IJCCI, ICCCNT, ICCISIoT (Published) Total: 13
Patents: USA (On review), UK (Published)   Total: 2
Book Chapter
Brain Networks in Neuroscience: Personalization Unveiled Via Artificial Intelligence. In Brain Networks in Neuroscience: Personalization Unveiled Via Artificial Intelligence. [Editor(s) Name(s)]. [Publisher], [Year]. ISBN: [ISBN number].

PROJECTS

- **TD-LLIE:** We developed a novel low-light image enhancement (LLIE) method based on the transformer and diffusion model that outperforms the SOTA LLIE methods testing on real-life low-light images.
- **HazeSpace2M:** We introduce a novel and diverse hazy dataset with 2 million hazy images of 10 distinct levels. Besides, we also propose a novel framework for single-image dehazing that improves the performance of the SOTA dehazing models.
- **LightCDC:** We produce a processed dataset for damaged crop classification and propose a custom lightweight CNN model for crop damage classification, which achieves 92% accuracy.
- **RoBERTaGCN:** RoBERTaGCN is a method to detect fake news in the Bengali language and achieve superior accuracy benchmarking against the various datasets and methods.

SKILLS

- **Language:** Bengali (Native), English (IELTS: 7.0), Korean (TOPIK: 4).
- **Programming:** Python; **Framework:** PyTorch, PySpark; **Database:** PostgreSQL.
- **Visualization tools:** Power BI, Adobe Photoshop, Adobe Illustrator, Figma.
- **Others:** Overleaf, Weka, Microsoft Suites, PyCharm, Jupyter, VS Code

TRAINING

LICT Top-up IT Training on Java   Khulna, Bangladesh
Bangladesh Computer Council (Certified by George Washington University, Washington, D.C.)   Aug 2019 – Sept 2019
- Training Duration: 300 hours
- The training includes 240 hours of technical skills such as Java, HTML, CSS, JavaScript, Bootstrap, and MVC Pattern, and 60 hours of other soft skills like presentation and communication.

Google Bangladesh Android StudyJam   Khulna, Bangladesh
ICT Division, GDG Dhaka, Google Developers   Feb 2018
- Training Duration: 225 hours, Topic: Android Application Development
- It was a complete Android app development course where I had to submit regular assignments and mini-projects throughout the training period. It ended up with a complete Android app development project.

Self Learning   Online/Books
Courses and books I completed myself for growing my knowledge.
- Python for Data Science and Machine Learning Bootcamp (22.5 hours)   Udemy — Sept 2019
- Python for Data Science, AI & Development (25 hours)   IBM — Mar 2024
- PyTorch for Deep Learning Bootcamp (52 hours)   Udemy — Mar 2024
- Foundation of User Experience (UX) Design (19 hours)   Google — Oct 2021
- Modern Computer Vision with PyTorch   Book by V Kishore Ayyadevara
- Python Deep Learning Projects   Book by Matthew Lamons
- Advanced Deep Learning with Python   Book by Ivan Vasilev

SCHOLARSHIPS

16th Korean Language Society Scholarship, Pai Chai University, Republic of Korea   Dec 2023
Global Korea Scholarship (GKS), NIIED, Republic of Korea   Aug 2022 – Present
Tuition Fee Waiver and Stipend, North Western University, Bangladesh   Dec 2014

OTHER ACTIVITIES

Volunteeting to Rescue Animals, Khulna Cat Society, Khulna, Bangladesh   July 2016 - Present
Arranging Community-based Events, Khulna University, Bangladesh   Oct 2017
Kimchi Making Event Volunteered, Pai Chai University, Daejeon, Republic of Korea   Dec 2022
Paper Presentation in ICCISIoT Conference, NIT Agartala, India   Dec 2019
NWU Inter-university Programming and Gaming Contest, Khulna, Bangladesh   Dec 2016
Participation in CSE Fest, Khulna University, Bangladesh   Oct 2017

REFERENCES

Khan Muhammad, Assistant Professor & Lab Director

VIS2KNOW Lab, Department of Applied AI, Sungkyunkwan University (SKKU), Seoul, Republic of Korea

Professor Khan Muhammad is my present advisor for my master's program at SKKU. I am actively conducting research as a research assistant under his close supervision at VIS2KNOW Lab.

Contact: +(82) 010-4831-2104, Email: khanmuhammad@g.skku.edu

Khan Muhammad, Assistant Professor & Lab Director

VIS2KNOW Lab, Department of Applied AI, Sungkyunkwan University (SKKU), Seoul, Republic of Korea

Professor Khan Muhammad is my present advisor for my master's program at SKKU. I am actively conducting research as a research assistant under his close supervision at VIS2KNOW Lab.

Contact: +(82) 010-4831-2104, Email: khanmuhammad@g.skku.edu

I hereby certify that the information provided above is accurate and complete to the best of my knowledge. I accept full responsibility for any discrepancies or errors that may arise in the future.