ZINEB TISSIR

AI RESEARCHER | GENERATIVE & MULTIMODAL LEARNING | MEDICAL IMAGING | TRUSTWORTHY AI

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SUMMARY

AI researcher with international experience in South Korea and Morocco, focusing on trustworthy multimodal and generative AI for real-world decision-making and healthcare. Published first-author Q1 journal paper (Mathematics, 2025) and multiple IEEE conference papers. Skilled in semi-supervised learning, domain generalization, and explainable deep learning, with growing expertise in LLMs, agentic AI, and MLOps. Motivated to pursue a PhD or research role advancing the reliability and scalability of next-generation AI systems.

RESEARCH INTERESTS

- Multimodal and generative AI (vision, language, structured data)
- Semi-supervised learning and domain generalization under real-world shifts
- Explainable and trustworthy AI for decision-making and healthcare
- Scalable AI systems bridging research and deployment

RESEARCH EXPERIENCE

AI Researcher — Independent Project **May 2024 – Present**

Casablanca, Morocco

- Developed an extended semi-supervised domain generalization framework integrating style transfer and uncertainty filtering, achieving state-of-the-art results on the ISIC2019 dataset.
- Currently exploring multimodal extensions and LLM-assisted data curation for medical imaging.
- Published work in Mathematics (Q1, 2025) under collaboration with the PRML Lab, South Korea.

Research Assistant — Pattern Recognition & Machine Learning (PRML) Lab **Mar 2021 – Mar 2023**

Gachon University, Gyeonggi-do, South Korea

- Designed CNN- and GAN-based architectures for medical imaging classification and synthesis.
- Contributed to three international conferences and supported collaborative clinical AI research.

Deep Learning Engineer — R&D Division, SiliconArts Inc. **Sep 2023 – May 2024**

Seoul, South Korea.

- Applied Vision Transformers for real-time retail object detection under occlusion and lighting variability.
- Integrated model deployment into Docker-based MLOps pipelines on Azure.

EDUCATION

GenAI & Machine Learning Bootcamp — **Ongoing (2025)**
Geeks Institute, Morocco

- Focus: AI Agents, LLMs, RAG, MLOps, Cloud Deployment (AWS & Azure)

M.S. in AI Software Studies — **2021–2023**
Gachon University, South Korea

- GPA: 4.31 / 4.5
- Thesis: "Multi-Style Ensemble Pseudo-labeling for Semi-supervised Domain Generalization"
- Supervisor: Prof. Sang-Woong Lee.

B.S. in Computer Science & Management — **2018–2019**
Hassan 1 University, Morocco.

SKILLS

- **AI/ML:** CNNs, Vision Transformers (ViT), GANs, LLMs, Semi-/Self-supervised Learning, Domain Generalization, XAI
- **Frameworks:** PyTorch, TensorFlow, LangChain, Scikit-learn, OpenCV, FastAPI, Streamlit
- **MLOps & Cloud:** Docker, Git, AWS SageMaker, Azure ML, CI/CD Pipelines
- **Programming:** Python, C++
- **Data Science:** Pandas, NumPy, Feature Engineering, Power BI

PUBLICATIONS

Journal Articles

- Z. Tissir, Y. Jang, and S.-W. Lee, "Style-Aware and Uncertainty-Guided Approach to Semi-Supervised Domain Generalization in Medical Imaging," Mathematics, Vol. 13, No. 17, 2763, Aug. 2025. Impact Factor: 2.2, Q1 (Top 5.9%).

Conference Papers

- Z. Tissir, S. Poudel, R. Baidya, and S.-W. Lee, "A Comprehensive Data Imbalance Analysis for Covid-19 Classification Dataset," ICTC 2021 (IEEE), pp. 20–24, Jeju, Korea.
- Z. Tissir, & S.-W. Lee, "Test-Time Neural Style Transfer Augmentation for Polyp Classification," Korean Society of Next-Generation Computing Conference (KING), Oct. 2022, pp. 268–270.
- Z. Tissir, & S.-W. Lee, "CycleGAN for Colorectal Disease Synthesis," Korean Society of Next-Generation Computing Conference (KING), May 2022, pp. 146–149.
- R. Baidya, H.-C. Park, Z. Tissir, & S.-W. Lee, "Vision-Based Golf Ball Tracking Using YOLO and Image Processing," Korean Society of Next-Generation Computing Conference (KING), May 2021, pp. 412–414.

HONORS & ACHIEVEMENTS

- 1st Place – Hack4Ed Hackathon (ESSEC Africa x Geeks Institute, 2025) — AI voice coach analyzing breathing and emotion.
- Selected for GenAI Bootcamp 2025 as a top-performing participant.
- First-author Q1 Journal Paper — Mathematics (Elsevier, 2025).
- Graduate Scholarship Recipient — Gachon University (2021–2023).

LANGUAGES

- English: Fluent | French: Fluent | Arabic: Native | Korean: Basic.