

Education	Stony Brook University	Aug. 2024 – Dec. 2026 (Expected)
	M.S. Candidate in Computer Science	GPA: 3.9/4.0
	Advisor: François Rameau Thesis: <i>Privacy Exposure and Omnidirectional Generalization in Scene Coordinate Regression for Visual Localization</i>	
	Inha University	Mar. 2018 – Jun. 2024
	B.E. in Electronic Engineering	
	Stony Brook University , Exchange Student	Spring 2023
Publications	Seeing Through the Weights: Privacy Leakage in Scene Coordinate Regression	
	Oleksii Nasypanyi*, Jaemin Cho* , Utku Ozbulak, Byungkun Kang, François Rameau. European Conference on Computer Vision (ECCV), 2026. Long Oral Presentation. 📄 Paper 🌐 Project 🔗 Code *Equal contribution	
Research	Spatial AI · Trustworthy 3D Vision · Visual Geometry	
	Spatial Intelligence Lab	Aug. 2024 – Present
	Graduate Research Assistant	
	Privacy Leakage in Scene Coordinate Regression	ECCV 2026 · Oral
	- Introduced the first query-based model-inversion attack for reconstructing private scene geometry from SCR models under black-box, gray-box, and white-box settings, relying solely on unrelated proxy images without access to the original training images. - On ACE models trained for 7-Scenes, achieved mean F1@5 cm of 82.8% (black-box), 89.6% (gray-box), and 94.2% (white-box); demonstrated leakage across four SCR architectures in indoor/outdoor scenes and recovered recognizable novel views.	
	Ray-SCR: Ray-Conditioned Scene Coordinate Regression for Cross-Device Omnidirectional Visual Localization	First author · Targeting 3DV 2027
	- Designed a ray-conditioning framework for four SCR architectures that fuses visual features with Fourier-encoded bearing rays and trains on multi-projection views with ray-aligned SfM supervision, enabling pinhole, fisheye, and 360° localization. - Across the 360Loc benchmark's four scenes and five camera types, reduced median rotation error by 52% during the day and 43% at night, and translation error by 14% and 2%, respectively, versus the best published cross-camera baseline.	
	Privacy-Preserving Scene Coordinate Regression	Project lead · Ongoing
	- Built an SCR defense using out-of-distribution supervision over local-patch and pooled-descriptor pairs, forcing predictions from descriptor-mismatched proxy queries outside the scene to prevent 3D reconstruction via model inversion. - Reduced mean F1@5 cm by 80%/69%/73% under black-/gray-/white-box attacks on seven ACE/7-Scenes models, improved 5 cm/5° localization by 7.2 percentage points, and achieved 98%/99%/82% F1 reductions on Cambridge Landmarks.	

Work Experience	Korea Electric Power Corporation Research Institute	<i>Sep. 2023 – Feb. 2024</i>
	Research Intern  Demo - Developed the ergonomic risk-assessment module for the Hyper-Realistic Safety Training System, winner of the 2024 Auggie Award for Best Education & Training Solution. - Optimized a MobileNetV3-based 2D pose-estimation pipeline for real-time risk assessment, cutting latency by 7 ms and compute by 30M MACs versus the original pipeline.	
	Visionin	<i>Jul. 2023 – Aug. 2023</i>
	AI Engineer Intern Improved YOLOv4 fire-detection mAP by 6 percentage points and reduced false alarms by 9% for deployment across 19 department-store CCTV systems.	
Teaching	SUNY Korea AI Summer School	<i>Jul. 2026</i>
	Teaching Assistant — Led hands-on computer vision labs for 43 students.	
Mentoring	5th Annual Nepal AI School (ANAIS)	<i>Dec. 2024 – Jan. 2025</i>
	Mentored the winning team in the Anti-Money Laundering Challenge Hackathon.	
Awards	President's Award (1st Prize, SBU Graduate)	<i>Nov. 2025</i>
	SUNY Korea Research Challenge; winner among 59 teams. Poster: <i>"Privacy Attacks on Scene Coordinate Regression for Camera Re-localization"</i>	
	President's Award (Grand Prize)	<i>Jun. 2022</i>
	Industry-driven Capstone Design Contest, Inha University; winner among 9 teams. Project: <i>"Carbon Monoxide Detector for Honeywell Korea"</i>	
Skills	Programming: Python, C/C++, CUDA ML & Vision: PyTorch, OpenCV, PyTorch3D, Open3D, COLMAP, hloc, PoseLib Systems & Tools: Linux, Git, Docker, ROS	
Military Service	Eighth Army, 35th Air Defense Artillery Brigade	<i>2019 – 2021</i>
	KATUSA Sergeant (Korean Augmentation to the U.S. Army), HR Specialist (42A)	