

## **Building Open Labs and Learning Activities for “Introduction to Geospatial AI”**

### **Organisers**

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- (more to come...)

### **Short description of workshop/tutorial format**

A highly interactive, education-focused workshop organised as a “Teaching Exchange + Lab Gallery Walk + Assessment Clinic.” The core activity is a Lab Gallery Walk, where participants rotate across five themed tables (each hosted by a facilitator) to review and refine reusable lab blueprints, datasets, and teaching notes. Together, we will assemble an open introductory GeoAI teaching pack, including a reading list, a lab catalogue, assessment templates, and a responsible GeoAI checklist for classroom use.

### **Goals and scope**

- 1) To identify a shared “minimum viable” curriculum for GeoAI education that bridges AI and geographic thinking (e.g., scale, spatial dependence and heterogeneity, and uncertainty);
- 2) To share and refine ready-to-teach labs/activities based on multimodal data (e.g., imagery, vectors, and text) and deployment realities (e.g., data standards and reproducibility).
- 3) To co-create practical assessment and integrity guidance for GeoAI teaching (e.g., rubrics, spatial generalisation tests, and ethical use of generative AI);
- 4) To publish an open, community-maintained teaching resource pack after the workshop (e.g., a GitHub repository with a Zotero reading list and editable templates).

### **Target audience**

Instructors, teaching staff, and graduate students designing GeoAI curricula; and researchers and practitioners who supervise student projects and want robust, responsible teaching materials. Interdisciplinary participation from Geography/GIScience, remote sensing, ML/AI, and related domain sciences is also highly encouraged.

**Tentative program (half-day; afternoon 3 June 2026)**

13:30–13:45	Welcome + “Course Postcards” (participants share audience, constraints, and top pain-points)
13:45–14:05	Lightning provocations (4 × 5 min): What belongs to an introductory GeoAI course? What students find hardest? What society expects?
14:05–15:35	Lab Gallery Walk (five themed tables; participants rotate; approximately 15 minutes per theme including discussion): <ul style="list-style-type: none"> <li>- <b>Theory:</b> Spatial validation and generalisation (e.g., blocked cross-validation and spatial leakage diagnostics);</li> <li>- <b>Data:</b> Geospatial, multimodal, and open-source datasets (e.g., data access, documentation, and reproducible workflows);</li> <li>- <b>Models:</b> Core model families and adaptation strategies for GeoAI (e.g., CNNs, transformers, GNNs, and foundation models);</li> <li>- <b>Applications:</b> e.g., multimodal place understanding via vision-language prompts, failure cases, and interpretation; and</li> <li>- <b>Responsible GeoAI</b> in the classroom (e.g., bias and uncertainty)</li> </ul>
15:35–15:50	Break + Resource Pinboard (post your favourite lab, dataset, or paper)
15:50–16:30	Assessment Clinic via peer critique circles: groups draft one assignment prompt (what students see) + rubric (how instructors grade) + “what good looks like” exemplars (expectations)
16:30–17:00	Fishbowl discussion: balancing innovation, reproducibility, compute constraints, and academic integrity
17:00–17:20	Live synthesis into the shared teaching resource pack
17:20–17:30	Wrap-up + next steps (community repository + optional follow-up virtual meetup)