

# CAMERA ORIENTATION ESTIMATION USING VISION TRANSFORMERS

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## TASK

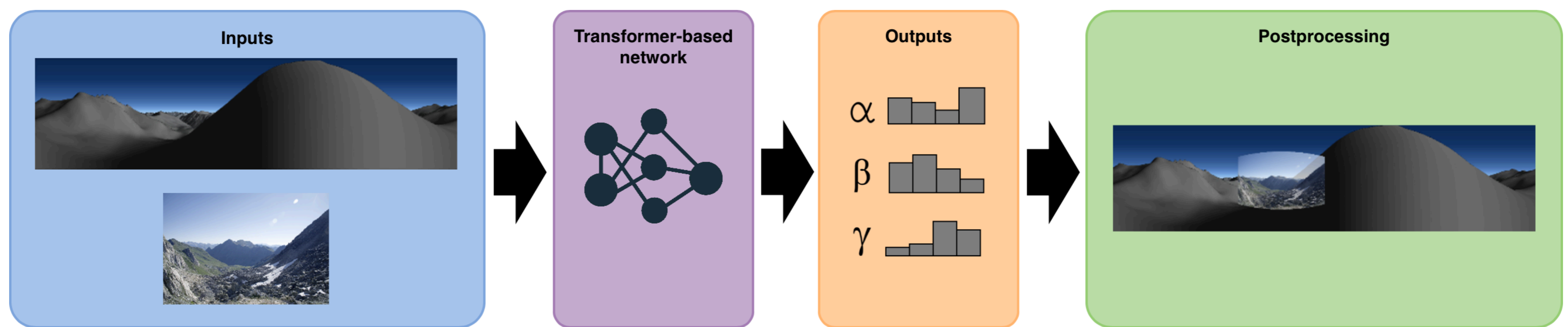


Figure 1: Task pipeline.

Aligning a synthetic 360-degree digital elevation model panorama with real-world query images in a natural environment, achieving better results than state-of-the-art

## RESULTS

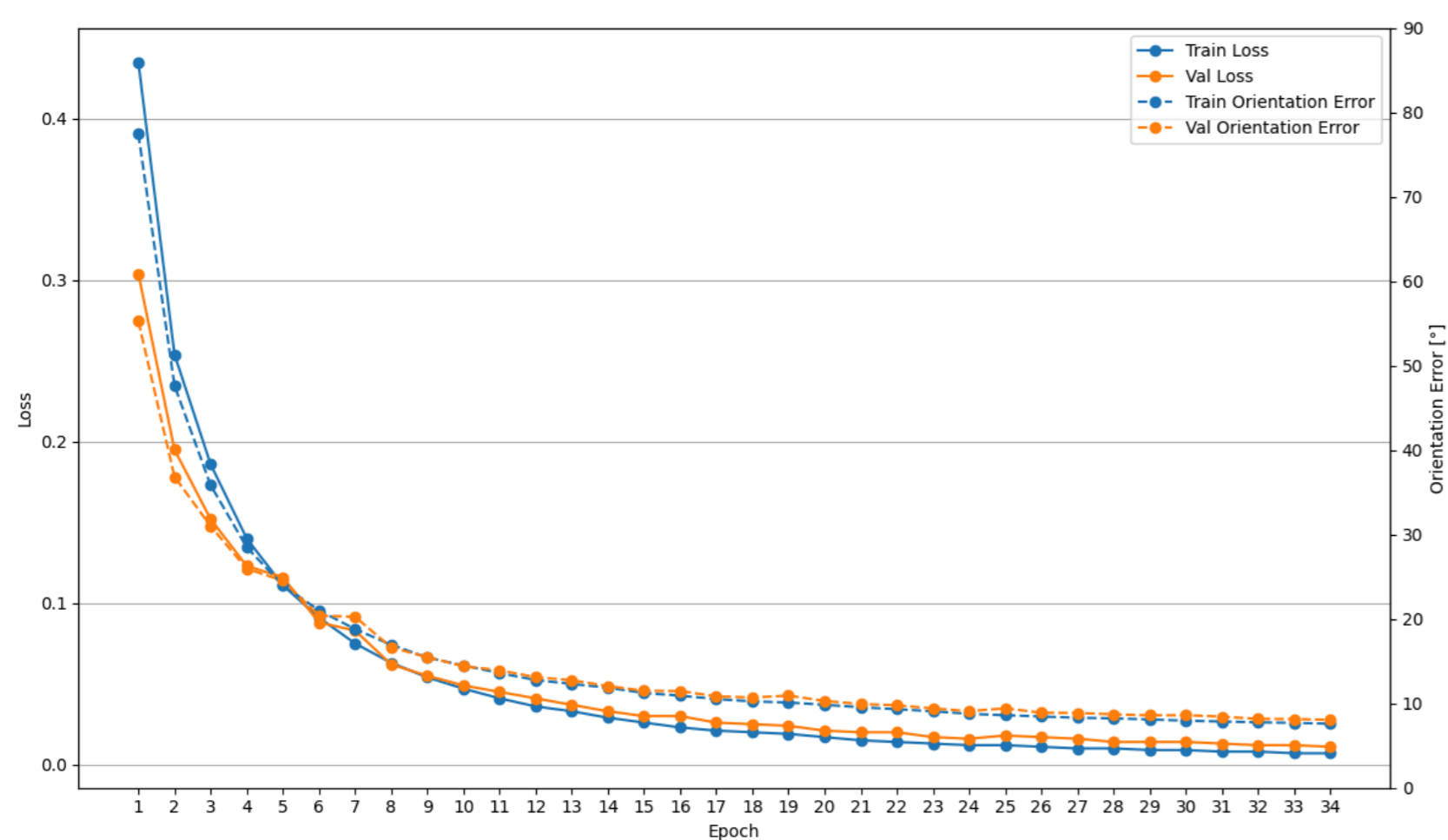


Figure 2: Learning curves

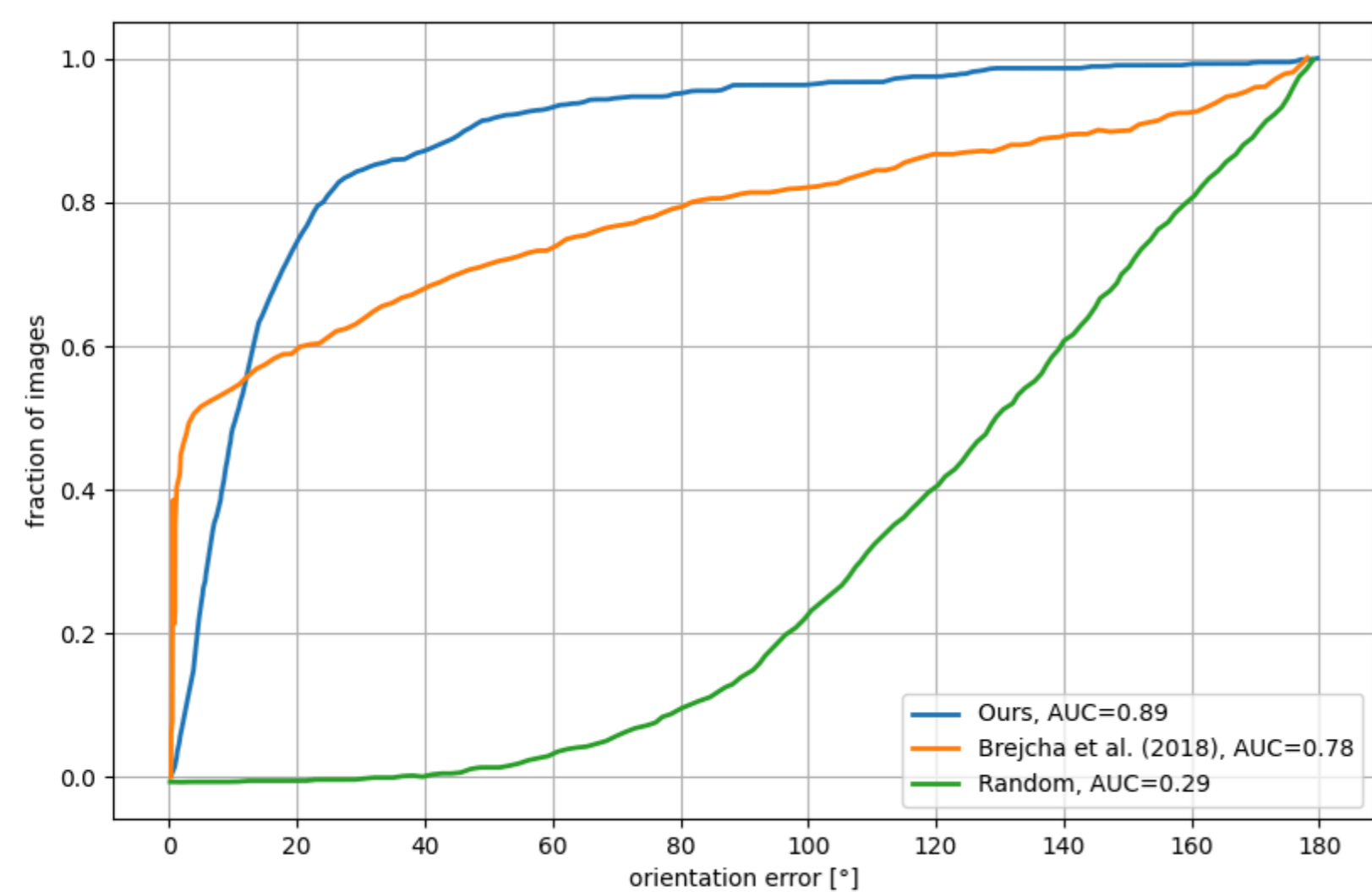


Figure 3: Orientation error comparison with SOTA method.

## ARCHITECTURE

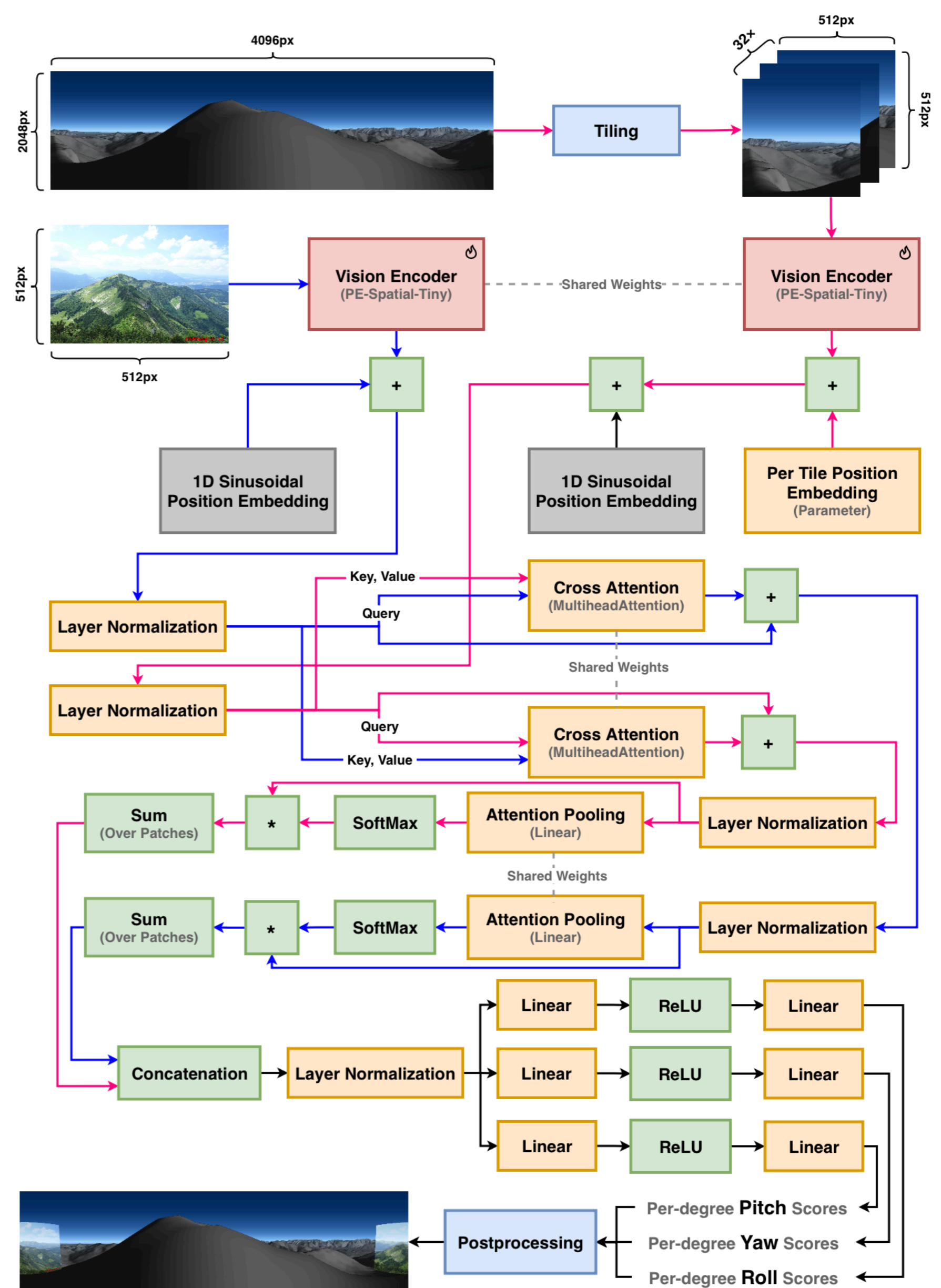


Figure 4: Proposed architecture.

## CHALLENGES

- NO FOV
- HIGH RESOLUTION INPUT
- CROSS DOMAIN
- TRAINING TIME
- GPU MEMORY
- LACK OF DATASETS

## CONTRIBUTIONS

- ☑ NO FOV REQUIREMENT
- ☑ LANDSCAPEAR DATASET REFINEMENT
- ☑ BETTER RESULTS THAN SOTA
- ☑ INSPIRATION FOR SIMILAR PROBLEMS
- ☑ DETAILED METHODS SURVEY
- ☑ EXPERIMENTS