

ECRTS Industrial Challenge 2025

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UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

High Performance
Real Time **Lab**





In a nutshell

- ✓ Improve collaborations between Academia and Industry
- ✓ Relevant real-time, challenging problems for the Industry
- ✓ Share ideas, experiences, use-cases, solutions

Contribute solutions:

- ✓ At any time during the year!
- ✓ With a cutoff date of (approx) mid May to be presented at current ECRTS

Resources

Website: <https://www.ecrts.org/industrial-challenge/>

Mailing List: <https://groups.google.com/g/ecrts-industrial-challenge>

GitHub: <https://github.com/ecrtsorg>

- ✓ Additional information, code, solutions, etc.
- ✓ <https://github.com/ecrtsorg/ecrts-IC-slides>
- ✓ <https://github.com/ecrtsorg/ecrts-IC-solutions>



Current challenge #1

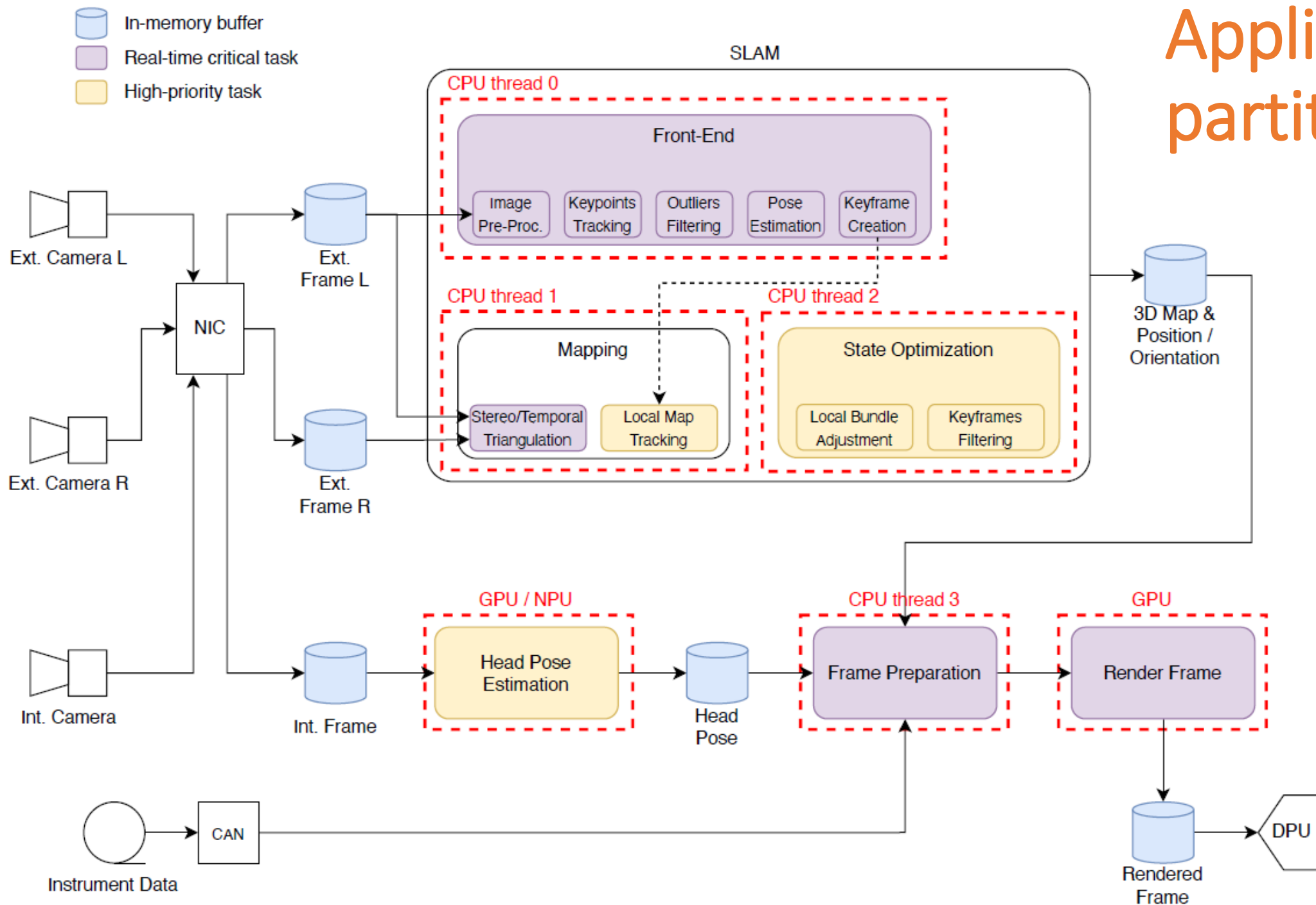
Proposed by ARM

Arm – Augmented Reality Heads-Up-Display

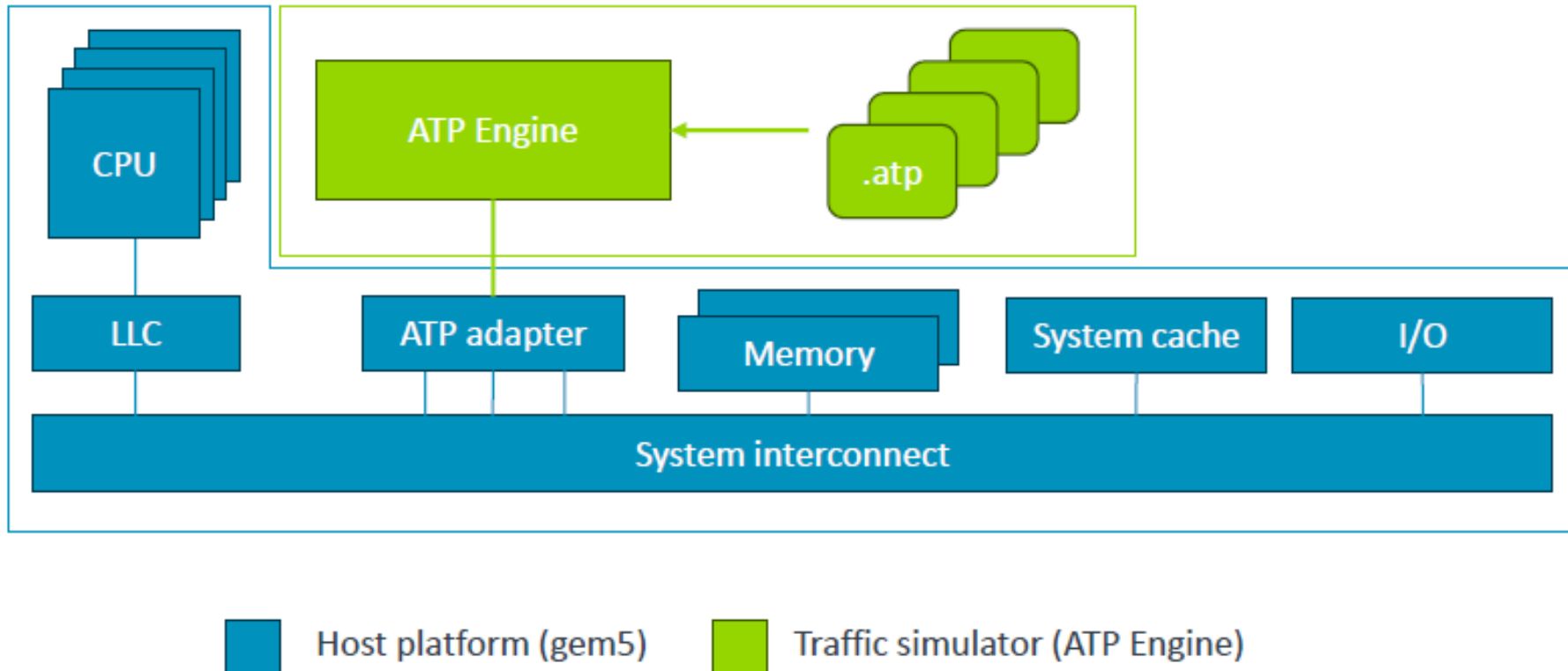
- ✓ Proposed at ECRTS IC 2022
- ✓ Augmented reality head-up display application (AR HUD) for the automotive market
- ✓ Extends the exterior view of the traffic conditions in front of the vehicle with virtual information (augmentations) for the driver.
- ✓ Process Real-Time data from vehicle sensors



Application partitioning



Gem5-based VP



See also <https://github.com/ecrtsorg> (and accompanying slides)