

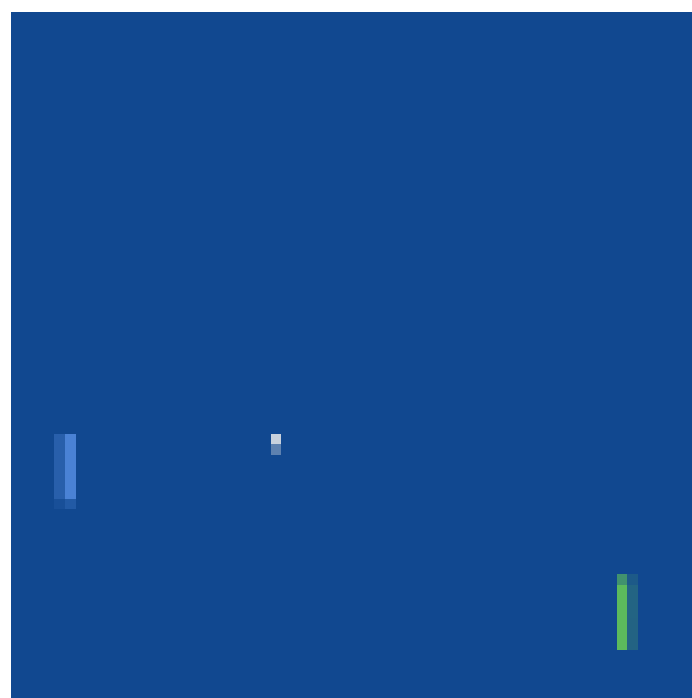
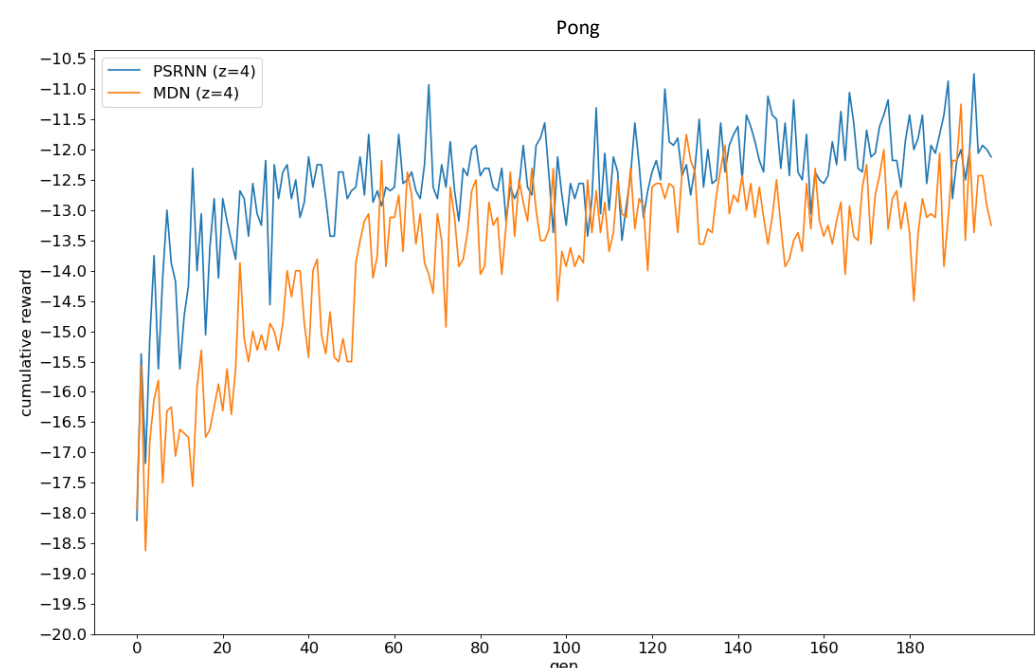
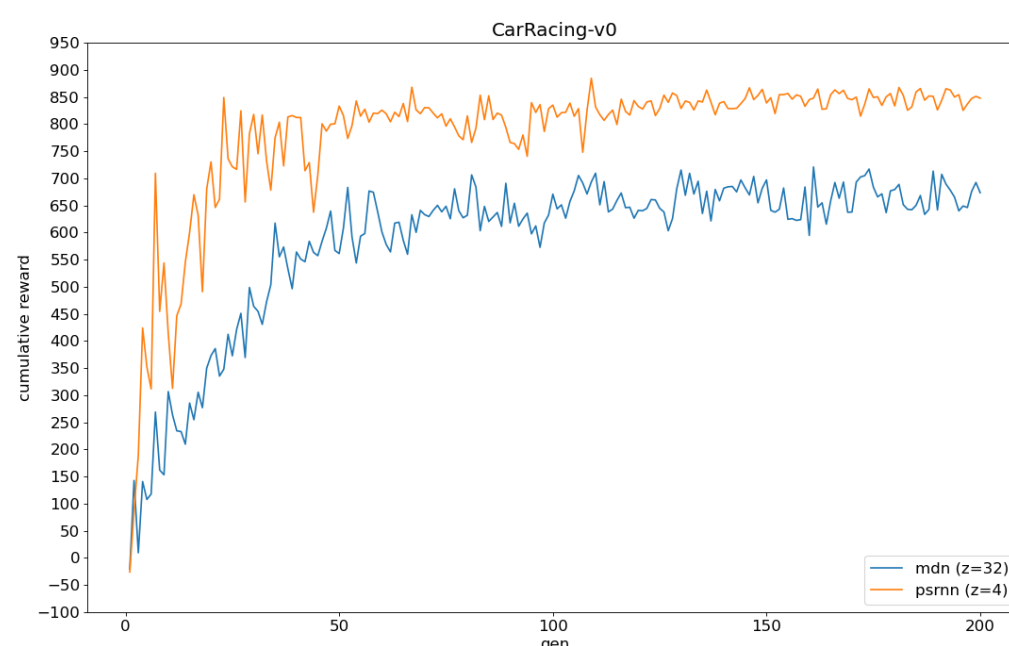
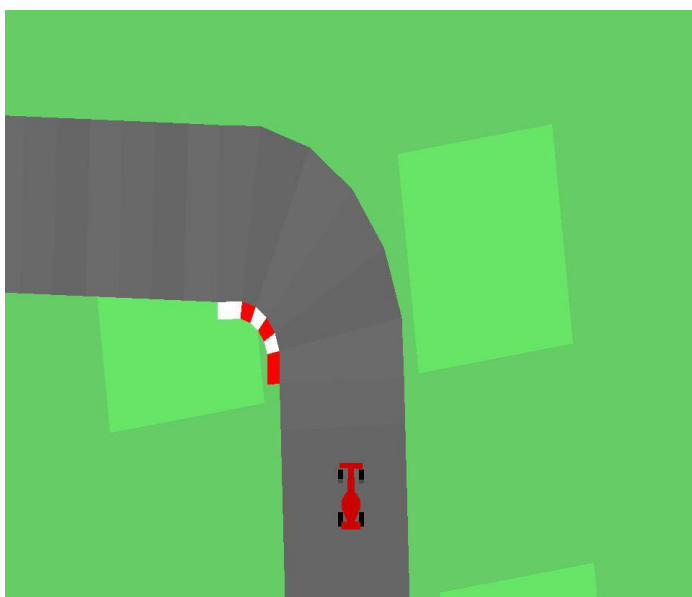
World Model with PSR Components

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Project Objectives:

The objective of this project is to investigate and evaluate the use of an alternative internal model, namely Predictive State Representations (PSR), within the World Model framework. The evaluation was done based on the new agent performances in the car racing and the Atari pong environments. Furthermore, the performance of the PSR model was also compared to that with the original world model agent, which uses MDN.



Car Racing (top), Pong (bottom)

Conclusion:

In both the environments, the PSR agent consistently performed achieved higher scores than the MDN agent. It was also found that when the latent space becomes smaller, the internal models achieve better predictive capabilities and thus, the corresponding agents attain higher rewards.