

Scribe Notes

Team3643

Reinforcement Learning Agent: (True online Sarsa(λ) - Topic 4)

Team Members: Aasish Tammana(1225545568), Akhilesh Udayashankar(1225622476), Prem Suresh Kumar(1225492151), Devadutt Sanka(1225362138)

Meeting 1

Scribe Name : Aasish Tammana

Meeting Date : 19th October 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present
Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- Initial meeting to discuss project topics. (All)
- Individual overview of the papers related to the 5 project topics. (All)
- Finalization of the Topic 4 - Sarsa Algorithm (All)
- Assessment of the Sarsa Algorithm and the implementation process. (All)

Meeting 2

Scribe Name : Akhilesh Udayashankar

Meeting Date : 21st October 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present

Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- Preparation of team plan (All)
- Discussion of project milestones (All)
- Task assignments for individuals over the project (All)
- Discussion of weekly meeting time. (All)
- Discussion of next week's tasks' complexity and deadlines. (All)

Meeting 3

Scribe Name : Prem Suresh Kumar

Meeting Date : 28th October 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present
Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- Status of project 4 and initial discussion on research of the Sarsa chapter(Chapter 12) in the textbook. (All)
- Discussion of True Online (λ), understanding of modern reinforcement learnings. (All)
- Discussion of Topic 12.7 on Sarsa, understanding the concept, results and discussion of the Sarsa algorithm. (All)
- Initial discussion of which part of the code base could be used for the Pacman domain. (All)

Meeting 4

Scribe Name : Devadutt Sanka

Meeting Date : 4th November 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present
Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- Submission of project 4 and aftermath discussion of project 4. (All)
- Detailed discussion of True Online (λ), understanding of modern reinforcement learnings along with differences between Q learning and Sarsa algorithms. (All)
- Learning about T-Test and Anova, learning about each other's understanding of the testing procedure mentioned in the project. (Aasish and Devadutt)
- Confirmation of the code base that could be used for the Pacman domain to implement the True Online Sarsa Algorithm (All)

Meeting 5

Scribe Name : Aasish Tammana

Meeting Date : 11th November 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present

Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- Create a github repo to collaborate and merge the changes (Prem)
- Create a new class in QLearningAgents.py to implement the True Online Sarsa algorithm. Use the flow of the algorithm provided and translate it to the pacman domain. (Akhilesh and Prem)
- Try to integrate it with Pacman Domain and make necessary modifications to call the new agent. (All)
- Create multiple layouts to test the script and run the algorithm. (Devadutt and Aasish)

Meeting 6 (In person)

Scribe Name : Akhilesh Udayashankar

Meeting Date : 18th November 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present
Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- True Online Sarsa implementation complete. Facing issues with integration. [PROGRESS DELAYED] (All)
- Re-evaluate the progress. Debug the issues with integration of the new agent with Pacman Domain. (All)
- Test the code for multiple values of Lambda. (Prem and Akhilesh)
- Research on the exact requirements to plot the graph and figure out how to generate the necessary outputs. (Aasish and Devdutt)

- Create a script to plot graphs on sample values to reuse on final output. (Aasish and Devdutt)

Meeting 7 (Additional Meeting)

Scribe Name : Prem Suresh Kumar

Meeting Date : 21st November 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present
Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- Update on the Issues. (All)
- Integration of new agent with pacman domain completed. (Prem and Akhilesh)

Meeting 8

Scribe Name : Devadutt Sanka

Meeting Date : 25th November 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present

Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- Run the algorithm on various layouts to compare the results. (Aasish and Devadutt)
- Compare the results of Q-Learning with True Online Sarsa and check the effectiveness of the algorithm (All)
- Plot the results to a graph and compare the results of both with t-test/anova (Aasish and Devadutt)
- Start working on the report and document the results. (All)

Meeting 9

Scribe Name : Aasish Tammana

Meeting Date : 2nd December 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present
Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- Draft the report with the findings of the executions. (All)
- Write the results/conclusion, Include the result plots and add references used through the project. (All)
- Add additional comments to the codebase (All)
- Write the Team Effectiveness Report. (All)

Meeting 10 (Final Meeting)

Scribe Name : Akhilesh Udayashankar

Meeting Date : 5th December 2022

Attendance :

Names	Attendance
Aasish Tammana	Present
Akhilesh Udayashankar	Present
Prem Suresh Kumar	Present
Devdutt Sanka	Present

Meeting Notes:

- Review Submission Documents, Code files (All)
- Write a Readme file (All)
- Proof read report and the relevant submission documents. (All)
- Project completion (All)