

# CprE/SE 491 Weekly Report 14

Dates: 4/20/2017 - 4/26/2017

## Dec1709 - ALVINN

### Autonomous Vehicle Mission Processor with Machine Learning

|                             |                                 |                  |  |
|-----------------------------|---------------------------------|------------------|--|
| <b>Team Leaders:</b>        | Bijan Choobineh<br>Darren Davis | <b>Advisors:</b> | Dr. Jones & Dr. Zambreno   |
| <b>Communicator:</b>        | Tracy La Van                    | <b>Client:</b>   | Josh Bertram - Rockwell Collins  |
| <b>Key Concept Holders:</b> | Jesse Luedtke<br>David Schott   | <b>Email:</b>    | <a href="mailto:dec1709@iastate.edu">dec1709@iastate.edu</a><br><a href="mailto:alvinn@iastate.edu">alvinn@iastate.edu</a> |
| <b>Webmaster:</b>           | Robert Stemig                   |                  |  |

#### Weekly Summary:

The main focus for this week was preparing for the final presentation. Design Document v2 and Project Plan v3 were finalized and posted to the website.

#### Past Week Accomplishments:

- **As a Group:** Worked on the preparing for the final presentation, which included final preparation of presentation slides and presentation practice.
- **Darren Davis:** Helped Tracy with final review of DDv2 and PPv3.
- **Tracy La Van:** Worked on final edits for DDv2 and PPv3. Worked with Darren to clarify a few areas and double check final formatting was good to go.
- **Robert Stemig:** Posted finalized documents to the website.

#### Pending Issues:

- **As a Group:** N/A

#### Plan for Coming Week:

- **As a Group:** Due to pending finals, most members will be focusing on studying rather than the project in the

**Individual contributions:**

| <b><u>NAME</u></b> | <b><u>Individual Contributions</u></b>                                      | <b><u>Hours<br/>This Week</u></b> | <b><u>Cumulative<br/>Hours</u></b> |
|--------------------|---|-----------------------------------|------------------------------------|
| Bijan C.           | Presentation Slides, Presentation Practice                                  | 5.0                               | 58.5                               |
| Darren D.          | Review of Documents, Presentation Slides, &<br>Presentation Practice        | 8.5                               | 81.0                               |
| Tracy L.           | Final editing on DDv2 & PPv3, Presentation Slides,<br>Presentation Practice | 14.5                              | 80.5                               |
| Jesse L.           | Presentation Slides, Presentation Practice                                  | 4.0                               | 55.0                               |
| David S.           | Presentation Slides, Presentation Practice                                  | 4.0                               | 40.0                               |
| Robert S.          | Presentation Slides, Presentation Practice                                  | 4.0                               | 49.0                               |
| Totals:            |   | 38.0                              | 366.0                              |

**Comments and Extended Discussion:**

The client expressed that compared to Dec1710, he felt we were behind and had a steep hill to climb in CprE 492 next semester in order to obtain our goals. The team feels that although we know there is a challenge in front of us for the fall semester, we feel confident in our decision to take slower start to Senior Design. This slower start has enabled the team to build a foundational knowledge about computer vision, machine learning, and neural networks and we believe this foundation will enable us to accomplish far more educationally than just the goals set forth for the project. This foundation has given us a greater sense of what has already been accomplished with these topics by others in the field in addition to the understanding of how these topics incorporate themselves into our project.

**Summary of Weekly Team Meeting (4/20/2017):**

- Please have presentation slides complete by noon on Sunday (4/23) so Tracy can make sure all the requirements are met
- Presentation practice Monday (4/24) at 10:30am
  - Slides should be complete and you should already know what you are going to say by this time.
  - Meet in library basement - Room 3 has been reserved

**Summary of Weekly Client Meeting (4/20/2017):**

- Updated the client with our progress
- Client said it was good our findings about OpenCV and other methods reflect what Rockwell Collins has also found
- Client mentioned he feels we are behind and have a steep hill to climb in order to accomplish our goals