# Logos/cis-logo-exports-final-8-2015-3/Web/2_Department_Lockups/InformationScience/cis-infosci-2-color.pngMaster of Professional Studies in Information Science

# Sponsored Project Proposal Form – Spring 2018

Please complete the following project proposal form to sponsor an MPS Project. This form will be used to determine if your project is appropriate for MPS students and whether it is of sufficient scope for a semester long project (~400-500 person-hours). We will assign teams with complementary skills based on the skills and experience you list in this form. We will also share most of this form with the students to help them make their top project choices before we assign the projects.

Please direct any questions to the MPS Project Coordinator: [is-mps-projects@cornell.edu](mailto:is-mps-projects@cornell.edu)

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| Sponsor Name | | Virtual Embodiment Lab | | | | | | Date | 11/28/17 |
| Contact Name(s) | | 1. S. Won | | | Email(s) | Asw248@cornell.edu | | Phone |  |
| Description of the Sponsor | | | | | | | | | |
| This organization focuses on tracking, transforming and interpreting human movement in virtual and augmented reality, and developing and testing environments for educational, social and clinical use. | | | | | | | | | |
| Please indicate which academic year and semester you would like to propose your project. | | | | | | | | | |
| Year | 2018 | | Semester | Fall | | Spring |  | | |
| Project Title | | | | | | | | | |
| Detecting State of Mind through Tracked Movement Data | | | | | | | | | |
| Project Goal or Description | | | | | | | | | |
| Team will use existing data sets to predict emotional states and traits during single user or two-person interactions in a virtual environment. These data sets were collected from previous experiments. While students will not be required to collect additional data, they will be encouraged and assisted to become familiar with the data collection process, including the process of scripting interactions in Unity 3D and C#, to better inform their data exploration. | | | | | | | | | |
| What activities are necessary to achieve the project goal? | | | | | | | | | |
| 1. Build on/modify existing R code to create features from existing movement data 2. Use machine learning/visualization to develop algorithms to predict states of mind from movement data and associated self-report 3. Test algorithms on set-aside data sets 4. Present a report of their findings | | | | | | | | | |

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| What outcome would determine that the project is a success? Do you expect specific deliverables? |
| Deliverable will be models that predict emotional states and traits based on tracked movement data; students will be assessed at each stage of the above activities. |
| What are the skills and experience must the students already know to start work on the project?  Please be specific and keep in mind that students will be building their skills during the duration of the project. |
| Readiness to explore data in an unfamiliar domain to gain new insights is required, as is at least some experience in machine learning. Knowledge of R/game engine development or interest in virtual environments is not required but is advantageous. |
| What are the skills and experience required to complete the project that the students may learn while completing the project? |
| Students will be provided resources and instruction in Unity 3D, C#, and R so that they can understand the origin of the datasets they will be working with. Students will receive guidance on data analysis. |
| The project representative must be available 30 minutes per week for status reports, the interim report, and the final presentation. As the project sponsor, are you able to make this time commitment?  Yes. Please elaborate. |
| Yes, we will have a standing weekly meeting. |
| Some sponsors may choose to spend additional time with the student teams, e.g. phone contacts for monthly status discussions, reviewing research results, providing midpoint project feedback, and offering input to the final deliverables in advance of its completion. As the project sponsor, are you available to participate in these or any additional activities?  Yes. Please elaborate. |
| Yes. We will provide input at each stage of the process. |
| The project representative needs to facilitate access to company resources as needed and approve expenses. As the project sponsor, are you able to facilitate access to such resources, should the need come up?  Yes. Please elaborate. |
| Students will be provided all necessary resources. |
| Please consider other contributions listed below. Are you willing to make these contributions? (check all that apply)  Provide existing industry and company data as background at the beginning of the project.  Pay one or more team members to travel to your location for initial briefing / work session / final presentation.  Please elaborate. |
| We will provide existing software resources to scaffold the project. |
| Please send your completed project proposal to the MPS Project Coordinator: [is-mps-projects@cornell.edu](mailto:is-mps-projects@cornell.edu) |