

## ABSTRACT

The SIUC Student Web Development Team built a fully functioning web application for the Ascend registered student organization as part of the requirements for competition at the National Collegiate Conference (NCC) of the Association for Information Technology Professionals (AITP). The SIUC Student Web Development team was comprised of five undergraduate students in the Information Systems Technologies program who completed the project on their own time, not as a requirement for a course or graduation. The development project was completed over the course of two semesters in the fall of 2016 and spring of 2017.

The Team followed the Agile Scrum methodology in building the web application. The project began with identifying a not-for-profit group for which to build a web application. Beginning with a team agreement, project charter, and client contract, the Team created the initial product backlog and proceeded to follow the Scrum process using two-week sprints. Sprint retrospectives were valuable for team learning along the way.

The Team used a variety of technologies to build the web application, many of them new to team members. Front-end technologies included CSS3/HTML5, JQuery, and Semantic UI. Back-end technologies included ASP.NET Core and PostgreSQL. Hosting environments used were Docker Community Edition and Digital Ocean. Planning and Design tools included Visual Paradigm, Visual Studio, Balsamiq, and Microsoft OneDrive.

The project scope included building a web application for Ascend that highlighted the organization's business leadership, professional development, and attention to diversity and inclusion. Several features were requested such as storage of membership data, tracking of member participation, the ability to sign up for meeting and volunteer opportunities, and more. A key requirement was that the website must be maintainable with minimal coding knowledge. The project was successful in both the Team and client's eyes. The client was happy with the product, and the Team gained real-world experience in development.

For the AITP NCC competition, the Team submitted period documentation of their process and product beginning in October of 2016 through March 2017. The SIUC Team was selected as one of the top five finalists, and was invited to present their project to the judges at the NCC in St. Louis, Missouri in April. The SIUC Student Web Development Team finished in third place, the highest placement for SIUC team.