



# NY FFA Officer Selection & Leadership Development Event Systems

CAC

## Project description

The New York Future Farmers of America (NY FFA) Association serves more than 8,000 students in 136 schools teaching agricultural education. While the heart of the organization is at the local chapter level, each year 6 students are elected to represent the association at large. These State FFA Officers are called upon to represent FFA members and agricultural education programs across NY, nationally, and even internationally. In order to assure that the most deserving students are selected as officers, the State Officer Selection process must be rigorous and provide a clear framework for evaluating and ranking candidates. Previously the evaluation process was Excel sheet-based which was labor intensive and lacked the flexibility desired to rapidly adjust evaluation criteria and store and analyze results. To automate this process, Derek Hill, Director of the NY Future Farmers of America and NY Agricultural Education Outreach at Cornell, collaborated with the Cornell Center for Advanced Computing (CAC) to create an easy-to-use web-based Officer Selection System.

## CLIENT

Derek Hill and the New York Future Farmers of America (NY FFA)

## SERVICES

- Web Interface
- Database Design
- Red Cloud Computing
- Data Management

## CAC services

CAC computational consultants developed a front-end web site and back-end database for the system which are hosted on a Cornell Red Cloud instance. When evaluations are not in process, the instance is shut down to minimize cloud computing costs. Using the system's control panel, the administrator sets up a password protected Officer Selection event. The administrator then decides which "evaluators" will enter scores for which "indicators" (the criteria upon which candidates will be evaluated such as communication skills, team player attributes, etc.).

## Results

The web-based NY FFA Officer Selection System is more flexible than the previous paper-based system which entailed entering data into a spreadsheet and tuning competencies, indicators, candidates, and other variables by hand. This was time consuming and potentially error prone. The use of a standard software solution such as Qualtrics was considered, but it didn't have the unique features desired. Thus, a custom solution was developed by CAC.

"We're excited to have a cloud-based solution that automates our selection processes and quickly generates the reports we need," says Hill. "We can now update indicators, evaluators, students, and other variables on the fly." Plus, he added, with a web-based system, virtual candidate selections can be performed remotely.

Hill was so pleased with the Officer Selection System, he initiated a second project with CAC. The goal—create a system that enables students to compete and be judged virtually in state-wide FFA Career and Leadership Development Events. Contests at these events test student career and employment skills such as floriculture, poultry evaluation and welding, and leadership skills such as public speaking and conducting chapter meetings.

CAC accepted the challenge and completed the new system in 6 weeks to meet an upcoming District Leadership Development Event deadline. The event was completed virtually in 10 districts across the state.

"We designed the Leadership Development Event System with flexibility in mind," says Ben Trumbore, CAC computational scientist. "The system easily accommodates different event levels as well as future changes in test content and, unlike the previous system, scores team event participants simultaneously based on their individual contributions."



“The system is a success,” says Hill. “It accommodates a wider range of test formats and scoring methods and allows judges to give participants constructive commentary for any contest component. Everyone benefits—students, judges, and administrators.”

John Doe  
 Senior Creed Speaking Presentation  
 Judge: x1y2z3  
 Chapter: FFA Chapter Name  
 Flight 1

Leave score page, I will return later - OR - Leave score page and lock it, I am done

| Oral Communication - 30 points |   |  |   |               |        |              |
|--------------------------------|---|--|---|---------------|--------|--------------|
| Indicators                     | Very strong evidence of skill<br>5-4 points             | Moderate evidence of skill<br>3-2 points   | Weak evidence of skill<br>1-0 points                    | Points Earned | Weight | Total Points |
| Pace                           | Speaks very articulately at rate that engages audience  | Speaks articulately but occasionally speaks too fast or has long unnecessary hesitations | Speaks too slow or too fast to engage audience          | 4             | 2      | 8            |
| Tone                           | Voice is upbeat, impassioned and under control          | Voice is somewhat upbeat, impassioned and under control                                  | Voice is not upbeat; lacks passion and control          | 4             | 2      | 8            |
| Volume                         | Emitted a clear, audible voice for the audience present | Emitted a somewhat clear, audible voice for the audience present                         | Emitted a barely audible voice for the audience present | 3             | 2      | 6            |

*Leadership Development Event (LDE) judges are presented “scoring pages” for each contest. These pages display judging criteria for each “Indicator.” Here, a judge scored a Senior Creed Speaking Presentation. The student earned 4 points for “Pace,” 4 points for “Tone,” and 3 points for “Volume.”*

| Non-Verbal Communication - 30 points |  |  |  |               |        |              |
|--------------------------------------|--|--|--|---------------|--------|--------------|
| Indicators                           | Very strong evidence of skill<br>5-4 points  | Moderate evidence of skill<br>3-2 points   | Weak evidence of skill<br>1-0 points   | Points Earned | Weight | Total Points |
| Eye contact                          | Eye contact constantly used as an effective connection. Constantly looks at the entire audience (90–100 percent of the time) | Eye contact is mostly effective and consistent. Mostly looks around the audience (60–80 percent of the time) | Eye contact does not always allow connection with the speaker. Occasionally looks at someone or some groups (less than 50 percent of the time) | 0             | 2      | 0            |
| Mannerisms and gestures              | Hand motions are expressive and used to emphasize talking points. No nervous habits.   | Sometimes exhibits nervous habits. Hands are sometimes used to express or emphasize.                         | Displays some nervous habits. Hands are not used to emphasize talking points. Hand motions are sometimes distracting.                          | 4             | 2      | 8            |
| Poise                                | Portrays confidence and composure through appropriate body language (stance, posture, facial expressions)                    | Maintains control most of the time; rarely loses composure   | Lacks confidence and composure   | 3             | 2      | 6            |

The digital transformation of the NY Future Farmers of America Officer Selection process and Leadership Development Events improved the user experience, increased agility, and provided data-driven insights.

#### ABOUT CAC

The Cornell University Center for Advanced Computing is located in Ithaca, NY. With a professional staff of computational and data scientists, cyberinfrastructure specialists, and a breadth of PhD-level expertise in astronomy, biology, computer science, information science, mathematics, and physics, CAC is creating tomorrow’s software, data and computing solutions today.

#### CAC INQUIRIES

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#### NY FFA

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