ACM 2019-2020 Student Chapter Excellence Awards Application

For Application Guidelines, see https://www.acm.org/chapters/student-chapter-excellence-awards

Award Category: Outstanding Website

Chapter Name: *

UC Irvine ACM Student Chapter (93287)   ▾

City: *

Irvine

State/Province:

California

Country: *

United States of America   ▾

Outstanding Website: Chapter Contact Information

Please provide all required information

URL for your Chapter homepage: *

For example, https://www.acm.org

http://acm-uci.org/

Facebook:

https://www.facebook.com/groups/acmuci/

Who is submitting this application? *

Enter Submitter's name

Ryan Yoshida

Submitter's Email: *

Enter Submitter's email

ryansy@uci.edu

Faculty Sponsor Name: *

Richard Pattis

Faculty Sponsor Email: *

pattis@ics.uci.edu

Outstanding Website: Chapter Achievements

Provide brief descriptions as requested, and stay within the character limit for each

Please provide a brief description of your chapter and school (1500 character maximum) *

Founded in 1965, UCI is the youngest member of the Association of American Universities. The campus has produced 3 Nobel laureates and is known for its academic achievement, premier research, innovation and anteater mascot. Led by Chancellor Howard Gillman, UCI has more than 30,000 students and offers 192 degree programs. It is located in one of the world's most economically vibrant communities and is Orange County's second-largest employer, contributing $5 billion annually to the local economy.

Over its 50+ year history ACM@UCI has become a hub for the fostering and dispersal of computer science knowledge at UCI. Through our club, motivated students of differing technical knowledge can simultaneously master the application of their computer science knowledge to problem solving and expand their knowledge of the wider field of computer science applications. With biweekly meetings and campuswide competitions, members are mentored through a series of challenging algorithmic problems cultivating the necessary skills both, for programming contests such as ICPC and IEEExtreme, and for application to their future careers in tech. Last fall we produced 3 teams in the top 100 at IEEExtreme and saw one of our teams place 7th at SoCal ICPC. Beyond the development of problem solving skills ACM@UCI also advocates the wider application of computing to real world problems with our seminar series. Currently, our club consists of ~500 members, with an average attendance of 30 at our meetings.

Outstanding Chapter Website Essay Guidelines (4000 character maximum) *

Tell us about the design and content of your website and any noteworthy features. Also tell us how you created it and what you do to keep it up to date. Don't forget to provide the URL so the judges can check it out. Please be sure to use your chapter's official name - do not refer to your chapter as 'ACM,' 'ACM-W' or 'WICS.' Please note, links to essays will not be accepted and will disqualify your chapter.

Every Tuesday and Thursday, as ACM@UCI members walk in the classroom for the beginning of the meeting, the link 'https://acm-uci.org' is inscribed upon the whiteboard. As all of the students pull out their laptops they immediately navigate to our home page and are presented with a link to our Facebook page, information about meeting times, and upcoming events hosted by our club. From there they will typically navigate to, perhaps the most important aspect of our website, the weekly problems list. These problems are hand selected by authenticated users through our intuitive problem submission and selection interface. Using the Firebase authentication system and the Firebase Realtime Database, the problems page automatically retrieves select problems, submitted by ACM@UCI board members, an hour before meetings for the user to solve. The problems are listed with their difficulty alongside hints and who to reach out to should the user get stuck. Once the meeting concludes the website will automatically fetch the posted solutions for that meeting's problems which can be referenced by users whenever they wish in the future.

Beyond this particular feature our website includes several other useful pages for our members including the pages listed under the About tab. Here, users can learn about ACM@UCI's history, our current and past board members, and our own blog which is dynamically uploaded by board members to the Firebase database through a custom markdown editor interface (judges can access if logged in). Our website also provides a way for students to be made aware of upcoming events hosted by ACM@UCI through the Events page. To receive email updates regarding these events and other information regarding ACM@UCI, users can add themselves to our email list through our website under the Contact tab. Under this same tab users can also donate directly to the club's DonorBox and report any issues with the website. An additional Easter Egg to our site is the Konami Code (up-up-down-down-left-right-left-right-B-A) which will trigger a deeply inspiring video from one of our past board members

Our website was made with HTML, JavaScript (specifically React.js), and CSS. The most challenging part of our website to implement was the problem selection. We wanted to make it as easy as possible to upload problems and select them, as this is our most frequent use case. However, we also needed to make it secure, so that only certain people could manage the problems. Hence, we used the Firebase Realtime Database to store problems. Originally, all the problems are stored in a "Submissions" branch within the database. When problems are selected for a meeting, they are moved to a branch corresponding to the appropriate quarter and week. Then, the Problems page automatically reads problems associated with each week from the database, displaying the problems for the current week at the top. By using the Firebase system we were able to leverage the Firebase Authentication system to secure data. As new board members come along, adding their accounts to the website is as easy as updating the list stored in Firebase. In order to update parts of our website outside of the problem sets, we have established a GitHub repository where we store the website's code. That repository is available at https://github.com/ACM-UCI/ACM-UCI-Website. When someone wishes to make an update, they can fork the repository, make changes, and issue a pull request. Once our web mistress reviews the pull request and merges it to Github Pages where it is hosted. Thus, by using GitHub, updates are easy to create and track, and there is always another person reviewing them for errors. Furthermore, collaboration between multiple people is straightforward. Overall, we believe we have built a website that is intuitive for both users and developers.

This form was created inside of Association for Computing Machinery.

Google Forms