

# ACM 2021-2022 Student Chapter Excellence Awards Application

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

**Award Category: Outstanding Website**

Chapter Name: \*

UCLA ACM Student Chapter (90844) ▼

City: \*

Los Angeles

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>

<https://acm.cs.ucla.edu/>

Facebook:

Who is submitting this application? \*

Enter Submitter's name

Matthew Wang

Submitter's Email: \*

Enter Submitter's email

[matt@matthewwang.me](mailto:matt@matthewwang.me)

Faculty Sponsor Name: \*

David Smallberg

Faculty Sponsor Email: \*

[das@cs.ucla.edu](mailto:das@cs.ucla.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) \*

The University of California, Los Angeles (UCLA) is an R1 university in the United States. There are approximately 32,000 undergraduates at UCLA, with over 2000 in computing-related disciplines.

UCLA ACM is the ACM student chapter at UCLA. It is the largest student tech organization on campus: this year, the chapter had 255 officers, and 1000-1500 unique event attendees. Our chapter serves many purposes: a place for students to develop computing, professional, and leadership skills; a vehicle to give back to the UCLA and Los Angeles community; and, as the de facto computer science student association. Our chapter ran over 400 external-facing events in 2021-2022.

The core of our student chapter is the committee system: eight subgroups that focus on different aspects of computer science. Our AI committee teaches machine learning and applies it to real-world problems; the Cyber committee focuses on cybersecurity; our Design committee bridges UI/UX and product design; the Hack committee introduces students to web and mobile app development; our ICPC committee competes in the ICPC and brings problem solving to a broader audience; the Studio committee takes an interdisciplinary approach to video game development and design; our Teach LA committee teaches K-12 courses at local Title I schools; the student ACM-W committee focuses on diversity in computing. Beyond our committee system, the chapter also runs large-scale activities such as career fairs, town halls, and socials.

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## 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.

The UCLA ACM main chapter website is at <https://www.uclaacm.com/> (or alternatively, <https://acm.cs.ucla.edu/>); the code is viewable at <https://github.com/uclaacm/website>. In this essay, we'll briefly touch on our website's design, explain our technical overhaul to Next.js, discuss our new approach to web accessibility, and mention our new events page.

Our chapter has had a website for the past 20 years. However, the current design is part of a larger project over 2020-2022 to completely overhaul our student chapter's design language. Given the size of our chapter (250+ officers, 1000-1500 event attendees, 400+ events), a standard and clean design system is necessary for our branding to be cohesive and easy to understand. In 2022, our internal design team (~ 20 students) conducted UI/UX research and identified two core areas of confusion: misuse of color, and content complexity. With that in mind, our software development team implemented three key design changes. First, we changed our color palettes to introduce more contrast; now, all of our logos and graphical elements meet WCAG 2.1 AA color contrast standards, a key accessibility metric. Secondly, we significantly reduced the typographical complexity of our website: all body text is in the same font, there are fewer typographic elements (ex headings, labels), and content has been made more concise. Finally, we brought a renewed perspective to the mobile design of our website, reducing clutter and creating a central point of focus for each page on the site. More on our design system is available at <https://design.uclaacm.com/>.

In tandem with the completion of our design overhaul was a technical overhaul. Over the summer of 2021, two developers migrated our site from a simple React site (bootstrapped with create-react-app) to use Next.js (<https://nextjs.org/>), a modern React framework focused on production-grade websites. Next.js provides a variety of features that improved our site year-on-year: better SEO support with statically-generated React pages, route prefetching, lazy-loaded images, reduced code duplication, and reduced bundle size. The rework was a large undertaking, with the original pull request (<https://github.com/uclaacm/website/pull/178>) touching 104 files and with a +/- of 30k+ lines of code. However, we've already reaped the benefits of our work - initial page load time was halved, and our mean bundle delivered decreased by 30%.

Virtual instruction also stressed the importance of web accessibility. With that in mind, our internal developer team focused on improving the digital accessibility of our website. Our approach balanced automated and manual testing. We integrated automated checks into every stage of the development pipeline: from strict a11y linters with ESLint, to loading aXe directly into the development bundle for live debugging, and writing tests with jest-aXe to break release builds on accessibility regressions. However, automated tests cannot capture the spectrum of disability. Thus, we ran chapter-wide workshops on web accessibility, and specific trainings for our development team members. We emphasized case studies of web inaccessibility, how to use developer tooling (aXe, Lighthouse, WCAG auditors), and using a screen reader live to understand the usage patterns of visually-impaired users. As of writing, our website passes both aXe and Lighthouse audits with a 100 score. In the future, we aim to continue putting accessibility first.

In this academic year, we also introduced several new features to our website. The most popular, motivated by a campus shift away from Facebook, has been our events page (<https://acm.cs.ucla.edu/events>). We

implemented a mobile-friendly and accessible calendar with our events from Fall 2021 onwards. To generate the page, we wrote a script to convert our marketing newsletter into JSON.

The development of our website exists entirely on GitHub; more can be found at <https://github.com/uclaacm/website>.

This form was created inside of Association for Computing Machinery.

Google Forms