UC Tech Awards 2023 Form
[Judges will be reviewing this document]

Instructions - Please type directly into this form, and complete each of the following fields. Please insure that your document is [fully accessible to those with disabilities](#) as well. [1] You will then upload this completed form into the application portal (which opens when you select the "apply" button on the [Background and Application Form landing page](#)) **Questions?** Please contact: [Laurel.Skurko@UCOP.edu](#).

1. **Person submitting the application/nomination**
   a. **Name, title, department, location/organization, and please indicate if you are** faculty **or** staff**:** Charron Andrus, Associate Chief Information Security Officer, Information Security Office, UC Berkeley
   b. **Email address:** candrus@berkeley.edu
   c. **The name of your organization:** UCB

2. **Award category** (i.e. DEI Leadership*, Design, Innovation, IT Security, Operational Excellence, Sustained Impact*, UC-Wide Collaboration) (*Individuals only)
   a. Innovation

3. **Name of person, name of the team, or name of the project to receive the award** (for team or project names, please keep them short and memorable because they will need to fit on a certificate/plaque.)
   a. Web Application Security Testing Program

4. **All project team members - if applicable** (Name, title, department, location/organization, and please indicate if they are faculty or staff, along with their email address(es).
   a. All from UC Berkeley:
      i. Josh Kwan (Information Security Analyst, ISO,) - Staff
      ii. Jennia Hizver (Course Instructor, MICS) - Faculty
      iii. Lisa Ho (Academic Director, MICS) - Faculty
      iv. Blaine Isbelle (Windows Operations & Services Manager, bIT) - Staff
      v. Liv Hassett (Associate Campus Counsel, Legal) - Staff
      vi. Allison Henry (CISO) - Staff
      vii. Charron Andrus (Associate CISO) - Staff
      viii. Julie Goldstein (Info Sec Policy Program Manager, ISO) - Staff
      ix. John Ives (Security Analyst, ISO) - Staff
      x. Mike Jones (Security Analyst, ISO) - Staff
      xi. Jonathon Taylor (Systems Administrator, ISO) - Staff

5. **Which location was affected by the work?** (the name(s) of the organization affected)
   a. UC Berkeley

6. **Summary** (1-3 sentences synthesizing the longer "Narrative - see below)
   a. The Web Application Security Testing Program is a partnership between UC Berkeley's Information Security Office and the School of Information's Master of Information and Cybersecurity (MICS) program with the goal of providing offensive (attacker's PoV) web app security testing for UCB while students learn cybersecurity skills.

7. **Narrative** (1.5-2 pages in Word - up to about 1,000 words- feel free to include visuals). This is a descriptive narrative about the person/team (and their portfolio of work - or the initiative/project - in terms of the selection criteria for that award. Please include:
   a. Description of the initiative(s) or portfolio of work that supports the nomination based on the award description.
   b. How they meet selection criteria (complexity, impact, and mission alignment).
   c. How their success is measured/quantified.
   d. The time during which the work was done.
   For more information to help you create this narrative, please scroll below to learn more about each award category.

   UCB mandates web app testing for critical systems every 2 years and prior to the graduate course ISO ran a testing program with a single Security Analyst and 1-2 students but scaling was difficult and the queue for testing outpaced capacity.

   The Web Application Security Testing program is a collaboration between ISO and the School of Information that provides graduate students exposure to app security testing focusing on both the technical and business processes.

   The Master of Information Cybersecurity is an interdisciplinary fully online program focused on developing students' understanding of information security technologies as well as the economic, legal, behavioral, and ethical impacts of cybersecurity. The MICS program aims to grow and diversify the cybersecurity workforce. And with the 100% online format the program is able to target individuals who work full time, those who might be interested in a career shift as well as expand talent in underrepresented groups.

   Program Development:
   - The student code of conduct was developed by ISO, reviewed by MICS, and then reviewed and approved by Legal
   - The course content was developed by the instructor (whose salary was funded by MICS) and the syllabus was reviewed by ISO
   - 16 virtual windows machines were provisioned for the testing (1 instructor VM + 15 student VMs) and funded by ISO
   - Student test accounts were provisioned for the testing efforts

- The program was able to obtain sponsorship from Portswigger for their web attack proxy software which saved $6750 per year in costs to administer the program
- Intake forms, program website, onboarding info for app admins, and outreach campaign were managed by ISO

Program Structure:
- Onboard 3-4 apps per semester
- Students learn web app security techniques for 7 weeks
- App Admins present their app to the class
- Students conduct testing for 7 weeks as teams
- Students author vulnerability reports & present findings
- ISO works with App Admins to remediate
  - After each assessment, ISO creates a ServiceNow ticket to track and manage remediation with App Admins

Results:
- 3 semesters completed
- 9 aps tested
- 102 flaws discovered
  - 18 high, 5 medium, 34 low
  - Sample of types: CSRF, Path Traversal, Data Tampering Malicious File Upload, XSS

Benefits:
- UCB P4 Applications are able to comply with testing requirements
- Campus risk levels are reduced
- Average cost of web app penetration testing can vary from $15k to over $100k (NetworkAssured.com's Web App Penetration Testing Costs)
  - Program cost to test 9+ apps per year is approximately $7,232
- Student Benefits:
  - Develop hands-on technical, writing, and presentation skills for real-world clients
  - Gain course credit to complete grad program
  - Receive recognition to further their careers in cybersecurity

UC TECH AWARDS
2023

UC Tech 2023 Awards Program Background Information

[This is for your information only. Judges will not be reviewing this section. It is here to provide you with additional information to help you shape the narrative, above.]

Eligibility
1. **Individuals or team**s, including those who were equally involved in **large projects** (Individuals only for DEI/Sustained Impact)
2. **Staff or faculty**
3. Those working closely **with tech and/or IT teams**
4. The project must be operational and have been implemented within the last **3 years** (delineate the time frame during which the work was done)
5. Those working in **cross-location** and **cross-functional** teams are encouraged to participate

Criteria:
1. **Complexity:** How complex was/were the problem(s) addressed?
2. **Impact:** How impactful was the work – number of individuals impacted, and/or depth of impact?
3. **Mission Alignment:** How the work advance the university's **mission, vision or values**

About Judging and the IT Leadership Council's "Selection Committee"

- The UC Tech Awards Program Selection Committee is composed of five members of the IT Leadership Council, including one member of the UC Office of the President and four others from locations who rotate annually. The names of committee members are listed on the program website after the selections have been announced each year.
- The committee determines the award winners on the basis of submitted materials and in accordance with the selection criteria.
- The judges will select up to one Golden and one Silver award will be selected for each category.

UC Tech Awards Category Descriptions:

1. **Larry L. Sautter Award for Innovation in Information Technology** – The award is given to an individual or a team for having implemented an innovative technology initiative that has had significant impact on the university's academic/research mission, student life, business operations, patient care, or public service mission. Innovation is defined as the new application of technology, the creative use of limited resources, or an emphasis on collaboration to solve a problem.

2. **DEI Leadership Award (For individuals only)** – Recognizes the leadership of an individual in advancing diversity, equity, and inclusion in technical communities, as demonstrated by specific tactics to create vehicles that improve visibility, access and engagement of underrepresented populations.

3. **IT Security Award** – The award is given to an individual or team that advanced IT security at the University of California through awareness and training, policy, technical controls, and/or IT security hygiene. Projects that intersect with legal, privacy, and compliance are eligible.

4. **Yvonne Tevis UC Collaboration Award** – The award is given to an individual or team that conducted a strong collaborative technology initiative across two or more UC locations, across a UC campus and UC health system, and/or with other UC partners.

5. **Mojgan Amini Operational Excellence Award** – The award is given to an individual or team that transformed a business process (via reliability, speed, scale, efficiency, and/or effectiveness), whether through business process design, automation, customer service, digital transformation, or another initiative.

6. **Design Award** – The award is given to an individual or team that transformed one or more touch points through the application of various design disciplines (e.g., visual design, interaction design, user experience (UX) design, customer experience (CX) design and/or industrial design to improve usability and/or create a more elegant experience for everyone, including people with disabilities.

7. **Sustained Impact Award** (For individuals only) – The award is given to an individual who, over time, has contributed significant expertise, passion, and commitment to the university as evidenced by a portfolio of work supporting the technology arena.

For more information, please contact Laurel.Skurko@UCOP.edu or visit the UC Tech Awards 2023 Background & Application Page

*Accessibility Tip – If you upload images into your Word document, please include a Caption and AltText (a vivid description of what is in the image). NB: Word now has an "Accessibility" tracker, which can help you identify and fix accessibility issues.