

Applications must be fully submitted by 11:59:59pm UTC-12 (AoE) July 26, 2023. Review the [2022 Program Highlights](#) for some inspiration and resources to supplement your application. Contact exploreCSR@google.com with questions.

Name: Pranit Bari

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Have you applied to past cycles of exploreCSR?*

No, this is my first time applying.

Outline your plans to recruit students, what you know about their computing research needs, and the partners that will support your efforts.

Contact exploreCSR@google.com with questions.

The definition of who is historically marginalized is responsive to a specific region, context, and its nuances. Some examples include students with disabilities, students who identify as women, students who identify as Indigenous, and additional identities and their intersections.

What student groups historically marginalized in computing do you plan to engage?

What opportunities and constraints do these students face in computing research?*

Maximum 1500 characters.

Final Edit: Computer Engineering remains a dynamic field necessitating hands-on learning beyond classroom-based opportunities via internships and extra-curricular activities. “DJ Unicode”, a program launched in 2017, trains students as open-source software developers over a year of guided projects. It caters particularly to those who face social and economic constraints, have limited access to computing hardware like laptops, stable internet access, gender-based limitations to participation in opportunities, and long commutes creating a serious impediment for picking up practical skills often critical for employability. DJ Unicode provides an opportunity for these students to participate in a remote-friendly, collaborative, peer-taught program that is conducive to advancing their computing education. The program maintains over 40% participation by females, offers remote learning opportunities to those who cannot afford to travel, and creates opportunities for leadership, mentorship, and personal development in addition to developing technical skills among participants, creating a sustainable community centered around open-source software development. By providing access to resources, mentorship, and training, we empower these vulnerable students to become proficient open-source software developers. Embracing diversity in all its forms, we pave the way for a more inclusive tech industry that harnesses the untapped potential of all aspiring software engineers, regardless of their background.

Draft Answer: Since 2017, our institute has run “DJ Unicode”, a free, year-round, student-taught program to train incoming first-year and second-year engineering students as open-source

software developers. DJ Unicode participants include a majority of those who face social and economic constraints with limited access to computing hardware like laptops, stable internet access, gender-based limitations to participation in opportunities, and long commutes with multiple hours of public commute one way, each day, to and from the primary educational institution creating a serious impediment for their learning experiences beyond classroom activities. Computer Engineering remains a dynamic field with ever-changing requirements for employability, especially a skill set including cloud computing, git, command line tools, testing and other best practices for software engineering, scalability and software architecture, for which the classroom-based opportunities are augmented through internships and other extra-curricular activities. Many students are unable to access such opportunities due to socioeconomic constraints. For instance, some rely on scholarships and travel grants to cover their travel expenses and the primary purpose for their education is to improve the employment opportunities available to them, ultimately affecting their social mobility. Unicode provides an opportunity for these students to participate in a remote-friendly, collaborative, supportive environment that is conducive to developing employable skillsets, and in contributing to the broader open-source community through learning opportunities via team-based projects. The program maintains over 40% participation by females, offers remote learning opportunities to those who cannot afford to travel, and creates opportunities for leadership, mentorship, and personal development in addition to developing technical skills among participants, creating a sustainable community centered around open-source software development. By providing access to resources, mentorship, and training, we empower these vulnerable students to become proficient open-source software developers. Embracing diversity in all its forms, we pave the way for a more inclusive tech industry that harnesses the untapped potential of all aspiring software engineers, regardless of their background.

Through the program we have created opportunities for helping participants learn about git, command-line tools, Django, ReactJS, Android and iOS app development, and more. We also created follow-on research pathways for students to pursue collaborative research culminating in publications at top conferences including NeurIPS, and research opportunities at leading institutions including IITs, Oxford, CERN, UCSD, NYU, and others.

Program participants have become successful web and app developers, taking on contract-based development from local startups, as well as garnering international acclaim by winning hackathons organized by the Indian govt., United Nations, Barclays, and other organizations. Many students received admissions into Ivy League schools, and are now formally employed at FAANG companies, contributing back to the ecosystem by mentoring others to follow their footsteps.

How do you plan to recruit students?*

Maximum 1500 characters.

Final Edit: The channels for recruiting undergraduate students are through the program participants for our collective activities which include: presentations like our team's

recent seminar at IIT Madras (online), via past participants from at 25-30 pan-Indian institutions largely including Tier-II and Tier-III Indian universities where students would most benefit from our program, outreach via mailing lists like the Google group AI in India, sponsorship of local hackathons (<https://tsechacks.tseccodecell.com/>).

Mr. Mehta co-founded DJ Unicode as a pilot program with 15 students in 2017. By 2020, they expanded activities to over 200 students in-person in Mumbai as well as online. In 2021, his team provided a similar project-based ML course to 100+ students across 27 Tier-II and Tier-III Indian colleges funded by Google Research India (<https://djunicode.github.io/umlsc-2021/>). The subsequent interest birthed SimPPL (<https://simppl.org>), a 'research collective' that are focused on the research and development of open-source tools to advance trust and safety on the social internet. Since 3 years, Mr. Mehta has led the NYU AI School (<https://nyu-ml.github.io/nyu-ai-school-2023/schedule/>) educating 900+ undergraduates primarily identifying as HMGs (from over 7000 applicants), in-person and online, sponsored by Genentech and DeepMind, at New York University, which provides an additional channel to identify India-based students who were virtual attendees.

Draft Answer: The channels for recruiting undergraduate students are through the program participants for our collective activities which include: presentations like Mr. Mehta's recent seminar at IIT Madras (online), via past participants from at 25-30 pan-Indian institutions largely including Tier-II and Tier-III Indian universities where students would most benefit from our program, outreach via mailing lists like the Google group AI in India, sponsorship of local hackathons like the TSEC Hackathon (<https://tsechacks.tseccodecell.com/>) sponsored by SimPPL via the One Fact Foundation (described below), and others.

This is how we have recruited students in the past: Mr. Mehta co-founded and led DJ Unicode as a pilot program with 15 students in 2017. His team grew it within the institute to cater to 100+ students. By 2020, they expanded activities like Google Summer of Code preparatory sessions, hackathon preparatory sessions, and delivered workshops in git and Github, web, and app development to over 200 students in-person in Mumbai as well as online. In 2021, Mr. Mehta and his team of teaching assistants whom he trained in advanced statistics through dedicated online lectures

(<https://www.youtube.com/playlist?list=PLob0yCmJjJ3XT9DfcQ63ly79ICmgGU5bt>) provided a similar, more accelerated project-based learning opportunity to 100+ students across 25 different colleges pan-India through a 13-week Machine Learning Summer Course funded by Google Research India (<https://djunicode.github.io/umlsc-2021/>). The student interest arising from these activities resulted in the founding of Unicode Research (<https://unicode-research.netlify.app>), and SimPPL (<https://simppl.org>), two overlapping 'research collectives' that are focused on the research and development of open-source tools to advance trust and safety on the social internet. For the past 3 years, Mr. Mehta has also organized the NYU AI School (<https://nyu-ml.github.io/nyu-ai-school-2023/schedule/>) catering in total to 900+ undergraduates primarily identifying as HMGs (from over 7000 applicants), in-person and online, sponsored by Genentech and DeepMind, at New York University, which provides an additional channel to identify India-based students who requested to virtually participate in the

program but were unable to be accommodated at the time. All of the programs have been free for all participants, even offering personal computing resources and recordings to accommodate those who face participation challenges.

Anticipated number of students reached*

2000

Who are the individuals, institutions, and organizations that will support the workshop?

How will these partners support the workshop?*

E.g. recruit and contribute student participants, provide in-kind resources, develop workshop content, etc.

Final Edit: The primary points of contact for this opportunity are Meera Narvekar and Pranit Bari, Full and Asst. Professors of Computer Engg. at DJ Sanghvi College of Engg. respectively, and Mr. Swapneel Mehta, incoming postdoctoral associate at Boston University and MIT. Mr. Mehta founded the SimPPL research program, and co-founded Unicode. He holds a Board of Studies position at DJSCE. All 3 will oversee the student projects while Profs. Narvekar and Bari support grant management and logistics. The workshop will identify interested participants into a research program similar to SimPPL, a research collective, which is housed within the One Fact Foundation (OFF, <https://onefact.org>), a 501 c3 nonprofit organization in the US. Mr. Mehta is affiliated with and fiscally sponsored by OFF so that SimPPL can compensate student contributors in India. They have designed a successful research program winning grants and awards from Amazon, Google Cloud, Goethe Institute, the Sunday Times, Wikimedia Foundation, Deutsche Welle Akademie, and growing to 20 research contributors from 4 Tier-II institutes in India. Accordingly, some projects may allow students to work with two registered nonprofits, DigiSwasthya, and the Aadhar Bahuddeshiya Sanstha in Maharashtra, India, to address technological challenges in public health. OFF will facilitate nonprofit newsroom partnerships in the US for student projects that may benefit from such partners.

Draft Answer: The primary points of contact for this workshop will be Pranit Bari, Asst. Professor of Computer Engineering and Mr. Swapneel Mehta, Ph.D. candidate at New York University (incoming postdoctoral associate at Boston University and MIT).

Mr. Mehta is a Data Science Ph.D. candidate at New York University, founder of the SimPPL program, and co-founder of Unicode. He holds a Board of Studies member position at D.J. Sanghvi College of Engineering, and remains actively involved with the student body since the past 6 years.

The proposed workshop will be an expanded version of our successful pilot research workshop series within SimPPL, a research collective, which is housed within the 501 (c)(3) nonprofit organization in the US, called the One Fact Foundation (<https://onefact.org>) that Mr. Mehta is

affiliated with, and provides fiscal sponsorship for the grants SimPPL receives so that members can be compensated with competitive stipends. Our goal has been to create structured research opportunities for students to lead impactful projects in the area of their choice, primarily in data science, machine learning, natural language processing, and computational social science by leveraging Mr. Mehta's expertise and capacity to advise them. It has been a successful program winning prestigious grants and awards from Amazon, Google Cloud, the Goethe Institute (Germany), the Sunday Times, the Wikimedia Foundation, Deutsche Welle Akademie, and others, growing to over 25 research contributors from 7 different institutes in India, 1 in the United Kingdom, and 3 in the United States including industry professionals as mentors. SimPPL allows students to build software to support nonprofit organizations with two confirmed partners, DigiSwasthya, and the Aadhar Bahuddeshiya Sanstha in Maharashtra, India, who share with us their technological challenges in the public health sector.

The SimPPL program that we are hoping to scale has – in just its 2nd year – provided participants with cutting edge exposure to chatbots, large language models, graph databases, network analysis and visualization, social media data mining, big data processing queries, and cloud-based deployment. All grants are committed in their entirety towards supporting full-time student contributors. Moreover, it has been designed to allow students to contribute part-time, with most contributors comfortably taking on full-time summer internships, taking breaks from participation during examinations or when personal commitments arise. They are placed on teams that ensure collaborative participation. Students have led entire projects, receiving opportunities to interact with mainstream social media companies like Twitter and Facebook as well as share their work directly with policymakers in the UK and US.

Objectives and expected results*

List 3-5 objectives and how you'll measure their achievement. Maximum 1500 characters.

Your Answer

Objectives of the Workshop and Research Program:

- Improve access to knowledge and resources about graduate school in India and abroad
- Provide networking opportunities with their peers, seniors, and industry professionals
- Improve confidence in planning their career as engineers, researchers, and scientists
- Improve the participation of diverse groups in the field of computing education through simplified research pathways
- Increase the production of collaborative research publications for relevant venues
- Receive offers to pursue reputable industry and research internships
- Create meaningful research-driven products to serve the needs of nonprofit organizations
- Connect students with professional mentors and collaborators

Measurement:

- Pre and post surveys of student career growth as a result of participation in this program and the training workshops
- Anonymized feedback form periodically filled by applicants to highlight shortcomings and areas of work for the program that can actively be improved
- Tracking student body composition, gender, socioeconomic status, and career goals through anonymized feedback to ensure we are catering to a diverse audience
- Tracking observable metrics including activity on discord channels, github repositories, and participation in weekly check-ins with research mentors
- Synthesizing conversations with their professional mentors to track their challenges and motivation to participate in external workshops and presentations to showcase their work

Workshop content, activities, and schedule*

What will students be doing, when, and how? Why will the content, activities, and schedule meet students' needs? Maximum 3000 characters.

Your Answer

E.g. social events, advanced workshops, presentation series, summer research experiences
Student sustainment plans*

Final Edit: Deliver 5 social media analysis seminars reaching 500 students. Recruit 30 research trainees from the attendees, to pursue full-time computing research for a paid 16-week research opportunity.

Students currently with SimPPL are students at DJSCE and other Mumbai colleges, and will help us peer-mentor incoming students in-person. Trainees self-select into 4 collaborative tracks, with a learning period for skill building, in-person hackathon sprints to build and run projects, and deployment with external partner nonprofits and newsrooms:

- 1. Web and app development (Javascript, Python, Flask, Google Cloud Platform),**
- 2. Social Media Data Analysis (Network Data Mining, Graph Analysis)**
- 3. Natural language processing (Toxicity and Hate Speech Detection. Topic modeling and Sentiment analysis applying large language models)**
- 4. Systems and Site Reliability (Docker, Google App Engine, REST APIs)**

Schedule:

Oct - Dec 2023: Deliver 2-3 Social Media Analysis seminars to 250 students based on similar past events (<https://github.com/SimPPL/SocialMediaAnalysis> – originally studying Twitter)

Nov 2023: Determine initial shortlist of pilot projects generally in the domain of AI for social good; leverage novel data from SimPPL.

Jan - Feb 2023: Deliver 2-3 additional AI for Social Good seminars to 250 students.

Jan - June 2024: Recruit interested students and conduct independent research over 16-week period. This is peer-mentored research staffed by a Ph.D. student as a project advisor, similar to SimPPL.

How will you build an inclusive culture of computing research that sustains students beyond the core activities of the workshop?

Your Answer

Final Edit: Prioritizing student interest and aligning research projects as well as organizational mission with the needs of students has been the key element for creating active and sustainable student communities. For our software engineering program, students were excited by the objective of working in teams to deliver end-to-end open-source platforms including startup-like products listed here (<https://www.djunicode.in/projects>). At SimPPL, we aligned our goals with student interests culminating in the independent projects listed here—structured as (free and open-access) products and research reports for our nonprofit partners (<https://simppl.org/products>). Students appreciate being empowered and we instill leadership and collaboration skills via team projects. AI for Good and Social Network Analysis are a combination that ensure research projects can be tied to a practical application. Inclusivity for us means that a new student feels welcome to join all projects. There is comprehensive documentation for each project to encourage newbies to contribute. Every student is provided cloud computing access; with meeting recordings, time zone and availability is never a participation constraint; personal careers and education are prioritized (e.g. pursuit of full-time internships and classroom studies is explicitly encouraged, office hours help plan for grad school). These principles create a supportive and inclusive environment for personal growth while fostering a sustainable community.

Draft Answer: Prioritizing student interest and aligning research projects as well as organizational mission with the needs of students has been the key element for creating active and sustainable student communities. In the past, for our software engineering program, students were excited by the objective of working in teams to deliver end-to-end open-source platforms including startup-like products listed here (<https://www.djunicode.in/projects>). Similarly, for the research at SimPPL, we aligned our goals with student interests culminating in the independent projects listed here—structured as (free and open-access) products and research reports for our nonprofit partners (<https://simppl.org/products>). Students appreciated being empowered and treated as professionals and we foster leadership and collaboration among them by defining relevant team projects. Social media is a well-known area for most of them, and it allows them to think intuitively to define diverse research projects ranging from AI bias mitigation to coordinated network detection. Our interpretation of inclusivity entails that no student should lack access to computing resources; their time zone and availability should not be a constraint for participation; their personal career and education should be prioritized (e.g. pursuit of full-time internships and classroom studies is a priority, office hours are hosted to

answer graduate school related questions); research and knowledge sharing is explicitly encouraged – unlike many student-led projects, each of our teams creates comprehensive documentation for each research project so any incoming student has clear understanding of ongoing projects and can individually determine what best aligns with their interests, educational, and career goals. This allows us to create a supportive and inclusive environment for personal growth while fostering a sustainable community.

How would an exploreCSR award build local capacity for supporting students from historically marginalized groups in computing research?*

exploreCSR awards aim to help faculty deliver a proof-of-concept to secure additional funding, in-kind support, and feed into an equitable and inclusive computing research ecosystem larger than one initiative or academic year. Maximum 1500 characters.

Your Answer

Final Edit: Since 2017 we created a pathway to develop an active, sustainable student developer community reaching over 300 students, via a free, year-round software engineering training program, Unicode. The critical challenge for developing a similar capacity for computing research is the lack of compute access, mentorship, and experienced researchers at Tier II colleges. The student-to-teacher ratio limits the capacity to undertake projects that could augment student skillsets and their understanding of computing education. This funding would allow us to build a pilot workshop and research program building on our experience identifying, mentoring, and empowering students facing socioeconomic hardship and financial constraints, to execute their independent research and engineering projects that improve their computing skillsets and drive social impact. We have achieved small-scale success through the SimPPL model that functions as an independent research collective fiscally sponsored by a nonprofit, but it was only possible because Mr. Mehta won grants from the Wikimedia Foundation, the NYC Media Lab, and Google Cloud to support student projects in the global south. We would like to use the funding to create a workshop that complements an open research program as a multi-year commitment to improving computing education, workshops, and research opportunities. It aims to augment student learning among the groups that face a lack of resources in this area.

Draft Answer: Over the past 6 years, we have been able to build local capacity without external support, creating a pathway to develop an active, sustainable student developer community reaching over 300 students from Tier II and Tier III institutes in India, via a free, year-round software engineering training program, Unicode. However, the critical challenge for developing a similar capacity for impactful research is the lack of institutional resources at Tier II and Tier III colleges: notably computational, mentorship, and experienced researchers to guide student groups effectively. The student-to-teacher ratio limits the capacity to undertake projects that could augment student skillsets and their understanding of computing education. The exploreCSR funding would allow us to build a comprehensive pilot program building on our experience identifying, mentoring, and empowering students facing socioeconomic hardship

and financial constraints, to execute their independent research and engineering projects that apply their computing skillsets to drive social impact. We have achieved small-scale success through the SimPPL model that functions as an independent research collective fiscally sponsored by a nonprofit, but it was only possible because Mr. Mehta won grants from the Wikimedia Foundation, the NYC Media Lab, Google Cloud, and AWS to support student projects in the global south. He did this in addition to pursuing his Ph.D. at NYU, and organizing the NYU AI School for 3 years. The exploreCSR funding would allow us to implement institutional support to take our learnings and create a workshop that complements an open research program as a multi-year commitment to improving computing education, workshops, and research opportunities to augment student learning among the groups that face a lack of resources in this area.

Start date*

Activities are intended to take place during the exploreCSR program cycle (i.e., September 2023 - June 2024).

End date*

Activities are intended to take place during the exploreCSR program cycle (i.e., September 2023 - June 2024).

Proposed budget allocation*

Maximum one award per institution per year. Maximum three total awards per institution. \$18,000 USD in Year 1, \$15,000 USD in Year 2, \$10,000 USD in Year 3.

Format by line item as: Description. [unit cost] x [number of units] = total cost

Student travel stipends. \$75 x 50 students = \$3,750

Gift cards for students to order meals. \$30 x 50 students x 4 days = \$6,000

References and additional context

Maximum 1500 characters.

Your Answer

Final Edit: Workshop Room Reservation, Travel, and Lunch Subsidies for student participants to attend in-person sessions for AI for Social Good workshop training
60 students x \$30 x 5 sessions = \$9,000

Stipends and Travel Subsidies for Student Teaching Assistants for AI for Social Good Training Workshop

5 days x \$100 x 3 students = \$1,500

Research Stipends and Computing Resources for Students to Participate in 16-week Research Training Program and Develop Team-based Research Projects aligned with their Computing Coursework

30 x \$250 = \$7,500

Unicode (<https://www.djunicode.in/>) is a sustainable student community fully operated by current undergraduate students that train others to participate in free and open-source software development

Unicode Research (unicode-research.netlify.app/) is a free research reading group that trains students to pursue advanced statistics training

(<https://www.youtube.com/playlist?list=PLob0yCmJjJ3XT9DfcQ63ly79lCmgGU5bt>) and machine learning training funded by Google Research India (<https://djunicode.github.io/umlsc-2021/>). We conducted training seminars for social media data analysis, getting into graduate school, and others.

SimPPL (<https://simppl.org>) was born out of Unicode Research with the aim to build impactful research projects as social good products for nonprofits and local newsrooms in India and the US with the One Fact Foundation (<https://onefact.org>) as a fiscal sponsor. The flagship project SimPPL built for the Sunday Times is Parrot Report (<https://parrot.report>) that received a Wikimedia grant, Google Cloud Research award, and grants from the NYC Media Lab and Deutsche Welle.

SimPPL published student-led research papers at NeurIPS 2022 Workshop (<https://openreview.net/forum?id=YBk2jG7MEaX>) and reports into coordinated activity on Twitter (https://jhagrutlalwani.vercel.app/blog/network_analysis_simppl, https://mehtaver.se/assets/pdf/papers/wiki_workshop.pdf) as well as a report on generative AI in journalism for Deutsche Welle (<https://www.overleaf.com/read/gtcmsmdvxzpw>) currently under submission to various venues.

exploreCSR is providing supplemental funding for research experiences for undergraduates (REUs) at USD \$7,000 per student for up to two students per PI. If you would like to request this funding, please complete this section.

Requests for supplemental REU funding will not factor into the acceptance of your overall application and will be evaluated only for accepted PIs. If requests exceed available funding, supplemental REU funding will be awarded by lottery. Supplemental REU funding will be disbursed as a single award with general exploreCSR funding.

Number of students

Maximum of 2

Your Answer

Description of the research project

Your Answer

Final Edit: **One student will lead a user research study for a novel chatbot that converses with users in low-resource regions in Bangladesh and India, partnering with nonprofit WaterAid to disseminate menstrual health information. The chatbot uses large language models operating on a custom document knowledge base comprising fact-checked**

information that it can use to answer user questions in a personalized manner. This study is a first-of-its-kind user research study into the use of LLM-driven chatbots offered through popular messaging apps Whatsapp and Telegram. We have already created a demo for the Telegram bot and received access to build a Whatsapp based bot so the student will focus on developing their UX research skillset.

The other student will lead a study into the analysis of the audiences of a public radio platform sharing links to the podcasts they publish on social media platforms like Meta, Instagram, and Reddit. The idea is to identify if there is a statistically significant effect to the visibility of a radio show episode driven by external sharing on social media websites. The study will involve quantitative analysis following a synthetic controls design in order to estimate the average treatment effect of the sharing of posts to a specific social platform so that we can inform the digital strategy of the New York Public Radio, a confirmed partner for our project who will provide the datasets necessary from their Google Analytics dashboard.

How will the student(s) be identified for, involved in, and supported through the research project?

We strongly encourage engaging students from historically marginalized groups.

Your Answer

Final Edit: The intention behind both projects is to build open-source, reusable technology to demonstrate viable use cases of AI for Social Good. Each project can be adapted to best suit the needs of the candidates who will be selected based on expressed interest and engagement in our workshops that will prioritize HMG applicants. Participants will lead these projects over 6-months between Nov - June 2024. The existing SimPPL team will be available to introduce, collaborate, support and advise them throughout.

The projects offer unique insights into UX research and digital audience research, both of which are valuable skills that will benefit the students in their career. The provision of project partners and real users of their work will ensure a steady stream of feedback that hones their ability to ask critical questions and assess the value provided through research to nonprofit public entities who need the insights to improve their offerings. Lastly, the projects are scoped out in a way where the SimPPL team can provide maximum support: for the Telegram bot we already have a demo and back-end ready to be deployed (see slides 12-13 here: <https://pitch.com/v/simppl-overview-impact-y7tc2e>). For the audience analytics project we have built relevant data analysis tools for two nonprofit newsrooms - VTDigger and Yale Daily News. See the audience analytics proposal scoped out (https://mehtaver.se/assets/pdf/papers/whitepaper_audience_analytics.pdf); both will guide the student.

How will your exploreCSR activities support the REU?

Your Answer

Final Edit: The exploreCSR activities are aimed at providing workshops and structured research projects so that candidates can get a better understanding of how to execute and independent and impactful research agenda. The projects will focus on the use of AI in the domain of social network analysis as a common theme that will drive many of the projects. This benefits the REUs that leverage some of the same channels to expand their projects e.g. the chatbot could be adapted to share corrections to viral misinformation being shared on social media about vaccines, brands, civic events, and create a pathway for fact-checkers to amplify their work. Similarly, for audience analytics, the project could leverage the data collection and analysis on Youtube, Meta, Instagram, and other social platforms (through valid API access) to deliver cross-platform insights about how external sharing of links could affect the traffic to certain podcasts and radio show episodes more than others. The common theme helps create an amplification effect for the impact achieved by the success of each of these REU projects. It also benefits the exploreCSR participants by allowing them to collaborate with the REU participants to showcase the downstream use-cases of their exploreCSR activities.

Research project start date: Oct 2023

Research projects must begin after September 1, 2023.

Research project end date: June 2024

Research projects must end after September 1, 2023.