**Section 1: Creating Application: PI Details**

Application Limit: Each applicant can only be the Principal Investigator (PI) or co-Principal Investigator (co-PI) on one proposal per round.

**Name (required)**

Pranit Bari

**Email (required)**

[pranit.bari@djsce.ac.in](mailto:pranit.bari@djsce.ac.in)

This email address will be used for all correspondence about the application.

**Title (required)** (Your role at your institution)

Assistant Professor

**Department (required)**

Computer Engineering

**Institution (please list full name without acronyms) (required)**

Other

**[Optional] Institution Name (required)**

University of Mumbai

**If you selected "Other" above, please list your institution here.**

**Institution Country (required)**

India

**University Finance Contact Name (optional)**

**University Finance Contact Email (optional)**

**[Optional] Google Scholar Profile (**Google Scholar profiles will not be considered in our application evaluation.**)**

<https://scholar.google.com/citations?user=f-0A8T4AAAAJ>

**Have you applied to past cycles of exploreCSR? (required)**

***Yes, I participated in a previous cycle***

Yes, but I did not participate

No, this is my first time applying

**If you've previously applied and have changed institutions, please provide any email addresses**

**you used in earlier program cycles. Otherwise, list "N/a" here.**

[swapneel.mehta@djsce.edu.in](mailto:swapneel.mehta@djsce.edu.in)

[pranit.bari@djsce.ac.in](mailto:pranit.bari@djsce.ac.in)

**Were you or your institution a past awardee of any of the following Google programs? (required)**

Award for Inclusion Research program

exploreCSR program

Google Academic Research Awards (GARA)

Research Scholar program

RFP collaborations

Other

Select all that apply

**I confirm that I am submitting only one proposal, either as PI or co-PI in this**

**application round. (required)**

**I agree to receive updates regarding my application. (required)**

Yes

No

**By proceeding, I acknowledge that my information will be maintained in accordance**

**with Google's Privacy Policy.(required)**

**The full Google Privacy Policy is here (https://policies.google.com/privacy?hl=en-US).**

**Section 2: PI Demographics**

Demographic information (i.e., gender/sex) collected via this application may be used for research purposes. Completion of the demographic questions is optional, and your answers will not be shared or made visible to decision-makers regarding your application.

Data are used to track trends, help determine new program offerings, request funding, and so forth. Feel free to answer all, some, or none of the demographic questions that appear in the application.

**Are all PIs full-time professors as of the application deadline? (required)**

***Yes***

No

Not sure

**Are all PIs working at academic institutions? (required)**

Yes

***No***

Not sure

**Have any PIs ever had an employment relationship with Google? (required)**

Yes

***No***

Not sure

**Has a version of this proposal been submitted in a previous round of any Google Research Awards**

**programs (eg. GARA, AIR, FRA, other RFPs)? (required)**

Yes

***No***

Not sure

**Have any PIs received funding from Google before? (required)**

***Yes***

No

Not sure

**If you selected "Yes" above, please share what your prior funding was.** Prior funding avenue

Co-PI Dr. Swapneel Mehta has received discretionary Google funds (INR 85,000) to run an ML summer course (https://djunicode.githu

**Informed consent for gender data**

Completion of these demographic questions is optional and will not affect your application or participation in the program. We use them only for statistical purposes, to track trends and improve our programs. By answering any of these questions, you are consenting to our

processing of that information for such analysis (for example, determining what percentage of respondents identify as a certain gender). If you do not wish us to process this data, please select "Prefer not to answer" or skip any or all of the demographic questions. To withdraw your consent for us to process this data at any time, contact [explorecsr@google.com](mailto:explorecsr@google.com) (mailto:explorecsr@google.com).

**PI Gender / Sex**

Prefer not to answer

***Man***

Nonbinary

Woman

None of the options apply to me

**PI Race / Ethnicity (**Select all that apply**)**

Asian (e.g. Central Asian including Kazakhstan, Afghanistan, etc; East Asian including China, Japan, Korea, etc; South

Asian including India, Pakistan, etc; South-east Asian including Thailand, Vietnam, Singapore, Indonesia, etc.)

Black / African descent (having origins in Sub-Saharan Africa)

Hispanic / Latino / Latinx (e.g. identify as Hispanic or Latino with ties in Latin America)

Indigenous (e.g. Aboriginal Australian, Alaska Native, First Nations, Native American, Native Hawaiian, Samoan)

Middle Eastern / North African (including the Middle East, North Africa and the Arab World)

White / European descent

Prefer not to answer

**PI Disability status (**Select all that applySection**)**

Prefer not to answer

No disability

Mental health / neurodiversity condition

Physical disability

**Is the PI currently serving in a military or have they served in the past?**

Prefer not to answer

No

Yes

Select one

**3: Co-PI Demographics**

Demographic information (i.e., gender/sex, race/ethnicity, and disability status) collected via this application may be used for research purposes. Completion of the demographic questions is optional, and your answers will not be shared or made visible to decision-makers regarding your application. Data are used to track trends, help determine new program offerings, request funding, and so forth. Feel free to answer all, some, or none of the demographic questions that appear in the application.

**Will the PI be working with a Co-PI?**

***Yes***

No

**Co-PI Name (**Full name**)**

Swapneel Mehta

**Co-PI E-mail (**E-mail**)**

[swapneel.mehta@djsce.edu.in](mailto:swapneel.mehta@djsce.edu.in)

**Co-PI Institution**

Other

**[optional] Co-PI Institution Name (please list full name without acronyms)**

University of Mumbai

**If you selected "Other" above, please list your university here.**

Co-PI Institution Country

United States

**Co-PI Google Scholar Profile**

<https://scholar.google.ch/citations?user=CyjtCXkAAAAJ&hl=en>

**Informed consent for demographic data**

Completion of these demographic questions is optional and will not affect your application or participation in the program. We use them only for statistical purposes, to track trends and improve our programs. By answering any of these questions, you are consenting to our processing of that information for such analysis (for example, determining what percentage of respondents identify as a certain gender). If you do not wish us to process this data, please select "Prefer not to answer" or skip any or all of the demographic questions. To withdraw your consent for us to process this data at any time, contact explorecsr@google.com (mailto:explorecsr@google.com).

**Co-PI Gender / Sex**

Prefer not to answer

Man

Nonbinary

Woman

None of the options apply to me

**Co-PI Race / Ethnicity** (Select all that apply)

Asian (e.g. Central Asian including Kazakhstan, Afghanistan, etc; East Asian including China, Japan, Korea, etc; South

Asian including India, Pakistan, etc; South-east Asian including Thailand, Vietnam, Singapore, Indonesia, etc.)

Black / African descent (having origins in Sub-Saharan Africa)

Hispanic / Latino / Latinx (e.g. identify as Hispanic or Latino with ties in Latin America)

Indigenous (e.g. Aboriginal Australian, Alaska Native, First Nations, Native American, Native Hawaiian, Samoan)

Middle Eastern / North African (including the Middle East, North Africa and the Arab World)

White / European descent

Prefer not to answer

**Co-PI Disability status (**Select all that apply**)**

Prefer not to answer

No disability

Mental health / neurodiversity condition

Physical disability

**Is the Co-PI currently serving in a military or have they served in the past? (**Select one**)**

Prefer not to answer

No

Yes

**Section 4: Project Details**

Strong applications will demonstrate how the proposed initiative fosters lasting, systemic change within the department to create a more inclusive and supportive environment for students from historically marginalized groups in computing research. Contact exploreCSR@google.com (mailto:exploreCSR@google.com) with questions.

**Proposal Title (required) (**Title**)**

SimPPL Responsible Computing Partnerships Program

Upload a file. No files have been attached yet.

Acceptable file types: .pdf

**Proposal Abstract (required) (**Abstract**)** 250 words

Most Indian educational institutions mandate a final-year project for students contributing to their Bachelor’s thesis. Due to a lack of computing resources, low teacher-student ratio, inadequate faculty mentorship, and a lack of initiative, a majority of underserved institutions, this ends up being a low-impact, rushed, limited-utility system that neither contributes to student development nor external impact. We want to reinvent the final-year project through external support for compute, mentorship, and partnerships. We will recruit teams of students, train them to identify social problems they are interested in, find and interview potential beneficiaries dealing with these issues, and adopt a human-centered design approach to develop technological solutions to these issues. Student groups will use direct their theses towards responsible computing research and development of real-world solutions for civil society, nonprofits, and intergovernmental agencies. This proposal is motivated by our 82-student pilot program that trained CS/IT undergraduates in Tier II, III, and other underserved educational institutions in India to build responsible computing tools for course credit, (ideally) as part of their curriculum. Our pilot successfully delivered 8+ top-tier workshop and conference papers and deployed responsible computing tools with over 4 external partners in 3 countries including the United Nations. One team created a spinout incubated as a societal-benefit innovation at MIT's flagship startup incubator program, launched pilots in India and Bangladesh advancing health literacy for expectant mothers. Another set of undergraduate fellows are now \*mentoring\* MIT Sloan's MBA students (MIT A-Lab) and NYU’s Data Science (CDS) graduate students to expand these innovations!!

PI CV (2 pages max) (required)

Choose File

PDF format only

**Departmental Impact (required) (**Describe the specific DEI challenges within the department that the project aims to tackle, how you'll measure their achievement, and how they will contribute to a more inclusive environment for HMG students. Articulate how the project will create a lasting legacy of change.**)** 1500 characters

90% of Indian engineers study at Tier II and III institutions. We cater to 4 million students in technology streams, where a majority end up with degrees, yet 35% remain unemployable. A major concern is due to a lack of knowledge and support, most departments do not–and cannot–offer industry-relevant training on topics that critically impact their employability such as knowledge of git, microservices, system design, code editors, cloud platforms (Google, AWS) deployment, data management best practices, and communicating research results. Furthermore, students from weaker socioeconomic backgrounds have limited access to the technology and tools they need to invest into, to upskill themselves. We have trained students for the past 8 years from programming and ML research to responsible technology deployment, formalized through student-run organizations still active (https://djunicode.in, https://nyu-mll.github.io/nyu-ai-school-2024) that–without our intervention, departmental support, or external funding–have trained 700+ and supported 1000+ students at 20+ engineering institutes in India and over 2000 URM-identifying students in the US. Our programs catered to non-CS, and non-STEM majors from marginalized backgrounds, and provided stipends to those from lower SES who later reported an increase in understanding and ability to apply AI to their work. These students continue on as mentors for others and in 2024 have presented research at Stanford, MIT, NTU Taiwan and more.

and we have a mentor network spanning the US, EU, UK, India, and Bangladesh for our projects including the Board Members for the nonprofit that was spun out to ensure students are compensated and supported for their research.

**Sustainability (required) (**Outline your strategy for ensuring the initiative's impact continues beyond funding, including securing ongoing support, integrating it into departmental structures, and evaluating its progress and impact.**)** 1500 characters

Prior to SimPPL, we have built Unicode and NYU AI School as communities and programs that are self-sustaining and drive continued impact without external intervention. We also created accredited coursework in responsible computing so that students get credited coursework in exchange for solving meaningful societal challenges with technology.

For developing tech innovations beyond funding, we propose a novel structure that we have demonstrably created a self-sustaining ecosystem for. In our program that restructures the final year project, first, student teams must identify an area and problem of interest they find relevant in the same way as before. However, second, they are taught to conduct 40+ user interviews to validate whether the problem they identified is "real", and whether there is a market for the proposed solution. If there isn't, they are forced to quickly reevaluate their hypotheses and conduct more user interviews for the new approach. Third, they conduct a user-journey walkthrough and quantify their value proposition to the end users. Fourth, they design the proposed solution and identify co-development partners including organizations we introduce them to. Then, they build and pilot their solution / final year project with end users, documenting the process for their thesis. This model has been adopted in our Mozilla-backed “Resident fellowships”, resulting in Mozilla leads inviting our students to present at their national conference.

**Partnerships (required) (**Identify key partners and describe their roles and contributions. Explain how these partnerships will enhance the initiative's impact, sustainability, and integration. Provide letters of support confirming their commitment and contributions.)Limit: 1500 characters

1. Sakhi is built by the team at SimPPL, a nonprofit working on information integrity and media literacy. We have launched a number of projects across 6 countries with over 20 university, newsroom, and nonprofit partners, reaching thousands of people with over 50 million viewers of our online media coverage. We built and deployed systems to audit recommender systems at Oxford (Mehta et. al, 2022), tracked coordinated networks with UK-based newsrooms, detected state-backed threat actors with former US intelligence agency partners, identified gendered hate and harassment with Bangladeshi country leads for Meta, supported digital literacy in Germany and Mongolia, deployed digital literacy and healthcare tools for hundreds in villages in India and Bangladesh. We have trained 100+ undergraduate students, published at workshops at ICML, NeurIPS, ICWSM, AAAI, winning awards from Google, Mozilla, Wikimedia. Deutsche Welle Akademie, the German national broadcaster, worked with us to conduct media literacy training and develop social listening systems for improving misinformation interventions. Spreeha Foundation, a Bangladesh based nonprofit run by a Microsoft UX Researcher is helping us deploy a Whatsapp based digital healthcare literacy chatbot in Bangladesh to improve menstrual care for adolescents and younger women (IRB-approved). NEST Center for Journalism works with us on advancing digital fact-checking as Mongolia’s only International Fact-checking Network member. Aadhar Bahuddeshiya Sanstha, a nonprofit serving tens of thousands of women, children, HIV-positive individuals, and domestic violence survivors, works with us on digitizing their healthcare efforts. Jagran New Media is one of India’s leading publishers with over 7,000 stories published daily. They partner with us to study the impact of beauty misinformation on tween mental health online. MIT, Harvard, and NYU: Working with teams to scale our information integrity work with university student clubs supporting us.

**Upload up to 3 letters of support**

Choose File

**Scalability (required)** (Describe how your initiative's model or approach could be adapted and implemented by other departments or institutions. Explain how it can be tailored to different contexts and needs.) Limit: 1500 characters

In our previous exploreCSR grant, we trained students from 22 colleges across India through fellowship programs in responsible computing. These fellows were matched with external partners to work on real-world projects aligned with their interests. In this process, they learned to identify problem statements, translate them into engineering or machine learning challenges, conduct market analysis, perform customer interviews, and develop strategies to solve these issues.

The model’s flexibility makes it easily adaptable to different institutional contexts. Institutions can partner with local industries and organizations to provide meaningful projects tailored to their specific needs and resources. The curriculum can be customized to emphasize areas such as market-driven development or social impact, depending on institutional priorities. In fact we received interest for partnering with the govt. of Denmark and of Finland to identify how we could deploy this model for their students.

Furthermore, the trained students from our program are now capable of mentoring others, enabling peer-to-peer learning that further supports scalability. By expanding this network of skilled students and partners, we can extend the benefits of the SimPPL model to new institutions. The partnerships we’ve developed and the community of fellows can serve as a foundation for other departments to replicate and sustain the model, ultimately driving responsible computing education at scale.

**Budget (required)** Limit: 1500 characters

Awards will be granted up to $125,000 USD. Provide a detailed breakdown of your proposed budget, including justification for each

expense. Demonstrate cost-effectiveness and how the budget supports long-term sustainability.

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

Example:

Workshops & Seminars (4): [$1,000/workshop] x [4 workshops] = $4,000

Conference Travel Grants (5 students): [$2,000/student] x [5 students] = $10,000

Mentorship Program: [$50/session] x [20 sessions] x [10 mentees] = $10,000

Etc…

Workshop Room Reservation, Travel, and Lunch Subsidies for student participants to attend in-person sessions for AI for Social Good workshop training

5 sessions x $50 x 80 students = $20,000

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

5 days x $150 x 10 students = $7500

Conference Travel Grants

$2,000/student x 7 students or Teaching Assistants = $14,000

Research Stipends for Students to Participate in a 12-month Research Training Program and Develop Team-based Research Projects aligned with their Computing Coursework

12 months x $125 x 40 students = $60,000

Computing Resources required for the research

6 months\* $2000 = $12000

Wi-Fi/Laptop/Other devices cost $5000

Miscellaneous $6500

**Experience (required) (**Briefly describe your experience as a past exploreCSR recipient and how it has prepared you to lead this initiative.) Limit: 250 words

From our pilot exploreCSR “Fellowships” program, we learnt to develop capacity for computing research at underserved Indian colleges across the country by tackling the lack of computing access, mentorship, and research coursework at Tier II and III educational institutions. The program started out well, netting over 140 applicants from 38 educational institutions whom we filtered to those with (1) time, and (2) basic programming skills (Python, HTML/CSS). We identified bottlenecks and introduced accountability best practices; sprints, standups, task lists, documentation, and meeting notes, improving our engagement with the fellows.

With exploreCSR’s support, we designed interventions to provide accurate menstrual health information to rural audiences in India and Bangladesh resulting in a tech innovation incubated at MIT’s flagship Delta V program for social entrepreneurship led by our undergrad fellows. This model, operating as an independent research collective sponsored by a nonprofit, helped us design a systematic approach to teaching students responsible computing. Students learned how to identify problem statements, translate them into engineering or machine learning challenges, and develop strategies to address these problems. The grant has been instrumental in shaping a structured framework for empowering students to solve real-world issues through computing and offering a roadmap to us to scale for the next iteration of this program to drive global impact.

In 2021, funding from Google Research India allowed us to deliver 13-week ML coursework to over a hundred undergrads who went on to lead projects for the Sunday Times, and publish papers at top-tier workshops. We launched a nonprofit in 2021 to formalize our fellowship programs with international partners at which point exploreCSR enabled us to scale our program to include students facing socioeconomic hardship and financial constraints. This initiative allowed students to undertake independent research and engineering projects that not only developed their computing skills but also contributed to social impact. We already work with most of the partners we proposed and aim to scale out partnerships to serve hundreds of millions of people. Our outgoing undergraduate fellows are now in turn \*mentors\* for a capstone project at NYU delivering an open-source product to the United Nations and another at MIT’s prestigious Analytics Lab for MBA students!!!

**How will an exploreCSR award empower your department to create lasting, systemic change that supports students from historically marginalized groups in computing research, beyond the funding period?** (required)Limit: 250 words

(We are particularly interested in proposals that embed diversity, equity, and inclusion into the very fabric of departmental policies, practices, and culture.)

Our focus on aligning research projects with student interests ensures that students from historically marginalized groups are engaged and motivated. By providing mentorship, cloud computing access, and leadership opportunities through team-based projects, we create a community that empowers students to pursue independent research and gain practical skills that enhance their chances for future industry employment or advance their academic careers.

SimPPL’s model of community-based research, which has helped students develop and deploy AI for Good and Social Network Analysis projects, will serve as the foundation for future programs. Through comprehensive documentation, open-access projects, and flexible participation policies, we ensure that all students, regardless of their background or circumstances, can contribute and grow. This model not only provides students with the technical and leadership skills they need but also addresses social, economic, and gender-based constraints that typically hinder their participation.

The exploreCSR award helps us to scale these efforts to form additional partnerships with nonprofits and industry to run pilot programs as well as have students lead research projects. This will create a sustainable ecosystem for HMG students who are prepared to lead in computing research, ensuring that the inclusive, community-driven model continues to thrive and evolve independently just like Unicode and the NYU AI School.

**References and additional context**

SimPPL (https://simppl.org): Research collective focused on information integrity.

Unicode (https://djunicode.in): student club started by Dr. Mehta under Prof. Bari's mentorship in 2017, actively building technological tools and responsible computing systems

Unicode ML Summer Course (https://djunicode.github.io/umlsc-2021): 13-week summer program to teach students from underserved backgrounds about ML research

NYU AI School (since 2019, https://nyu-mll.github.io/nyu-ai-school-2024): AI winter/summer school for undergraduates from all majors including non-STEM majors.

Shalizi Stats (https://www.youtube.com/playlist?list=PLob0yCmJjJ3XT9DfcQ63ly79ICmgGU5bt): Reading group Dr. Mehta created and led for the analysis of Cosma Shalizi's foundational text.

Interview for Rest of World: https://restofworld.org/2024/3-minutes-with-swapneel-mehta-simppl/

Deutsche Welle (DW): https://akademie.dw.com/en/how-the-media-can-build-trustworthy-ai-tools-to-tackle-disinformation/av-68467233

DW Akademie: https://akademie.dw.com/en/suddenly-you-cant-trust-anything-you-see-online/a-66693948

UNESCO Session: https://akademie.dw.com/en/dw-akademie-at-world-press-freedom-day-2024/a-68668869

**Section 5: Use of genAI**

By submitting this application:

I agree to Google's Terms of Service (https://policies.google.com/terms?hl=en-US).

Google may request additional information about my application and funding amounts for selected applications will be determined at Google's discretion.

I confirm the information submitted in this application is true and correct.

**(Optional) We are interested in understanding how applicants are approaching the use of generative AI (genAI) tools in proposal development. Did you leverage genAI in your proposal in any way?** (This section is for informational purposes only and will not be scored in the evaluation process. This is not a mandatory question, and proposals will be evaluated based on their overall merit regardless of genAI use.)

Yes

No

Prefer not to say

**If my project is selected for funding, Google may publish the title and abstract of my proposal. (required) (**If you select no, your name/proposal title will not be posted on Google webpages.**)**

Yes

No

**I confirm that I am submitting only one proposal, either as PI or co-PI in this application round.** (required)

**I allow Google to disclose my application and materials to its employees, including from**

**other Alphabet entities (e.g., Google[x], Nest Labs). Those who receive my application and materials may be working on similar ideas or technology now or in the future. By submitting an Application, I waive any claim that information included in my Application or Materials is proprietary or confidential.** (required)

In the event your proposal aligns to interests lying outside of Google but within an Alphabet entity, we may want to pass your proposal to an Alphabet entity for feedback or to request additional funding.

**I may be contacted for feedback and product improvement purposes. (**[**https://www.google.com/**](https://www.google.com/)**) (checkbox)**