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# Google University Relations in Taiwan

- A briefing and Q&A

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East Asia Research Solutions & University Relations, Google
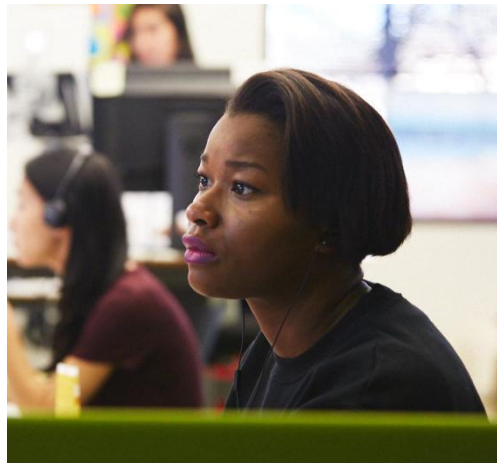
# Outline

- Google University Relations: a Global Perspective

- Google University Relations in Taiwan

- Program / Collaboration Examples

- Google Contact

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# Google University Relations

**Google**

Organize the world's information and make it universally accessible and useful.

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# University Relations @ Google

## What do we do?

- Enable academic collaborations for Google Research
- Promote academic research in areas of interest to Google
- Support the pipeline of CS researchers globally

## Why do we do this?

- Augment research capacity
- Create research results and impact that would not otherwise be possible
- **Positively impact as many people as possible to make the world a better place**

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# Opportunities for Faculty

## Research Grants

**Supports research sponsored by Googlers**. Not for open call but Google Sponsor applies for it on behalf of the Professor.

## Research Scholar Program

**Supports research conducted by early-career faculty** globally. Applications open in Fall.

## Award for Inclusion Research Program

Supports research addressing the needs of **populations historically underrepresented in the tech industry**. Applications open in Summer.

## exploreCSR Program

Awards that support universities to host **CS research workshops** to increase the number of **students from historically marginalized groups'** in CS research pathways.

## Visiting Researcher Program

Invite-only program for academic researchers to visit Google for 3-12 months to **collaborate with research and engineering teams.**

research.google/outreach

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# Opportunities for Student

## PhD Fellowship Program

**Fellowships recognize outstanding graduate students** doing exceptional and innovative research. The program supports promising PhD candidates of all backgrounds who seek to influence the future of technology.

## Student Travel Grants

Support outstanding research students to **attend leading conferences**.

https://buildyourfuture.withgoogle.com/scholarships/google-conference-scholarships (APAC tab, East Asia section)

## Conference Scholarships & internships

**Scholarships to encourage students** to excel in their studies and become role models and leaders. Additionally, **internship opportunities** are available across various research areas.
buildyourfuture.withgoogle.com/

## Student Researcher Program

Support students to pursue future career in research. To work with Google teams at Google as **Research Intern**. Flexible internship period. BS, MS or PhD students are all eligible.

research.google/outreach

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# Research resources

## Google Cloud Platform (GCP)

**GCP Research Credits** to provide students and researchers with computing power, storage and AI tools to develop bold ideas and make cutting-edge discoveries.
cloud.google.com/edu

## Datasets

**Google open-sourced data** of interest to researchers in a wide range of CS-related disciplines contributed to the broader research community.
research.google/tools/datasets/

## TensorFlow

An **end-to-end open source machine learning platform** offering a flexible ecosystem of tools, libraries and community resources that lets researchers push the state-of-the-art in ML
tensorflow.org/

## Cirq

A **python framework** for composing, analyzing, implementing and simulating quantum circuits, design for contemporary quantum computers.

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# Research values

## People + AI Research (PAIR) guidebook

**Toolkit of methods and best practices** for designing human-centered AI products.

pair.withgoogle.com

## Responsible AI

AI Principles that guide Google research and applications, best practices for communities outside of Google, and programs to operationalize our efforts to **develop artificial intelligence responsibly in order to benefit people and society**.

ai.google/responsibilities

## Learn with Google AI

Information, courses, and exercises from ML experts at Google to help **develop skills and advance projects**.

ai.google/education/

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# Google UR in Taiwan

# UR in Taiwan: Collaboration History

## 2020
### Initiation

- Start from small

## 2021
### More

- More programs
- More universities

## 2022
### Silicon

- Taiwan Silicon Research Program
- More research projects
- A few first(s)

## 2023
### AI

- Silicon Expansion Plan
- AI, Health, Hardware
- Co-announcement of collaboration

# Collaboration Programs at a Glance

## Faculty

Research Grant

Award for Inclusion

Research Scholar

Visiting researcher

Conf. Sponsorship

GCP Credits Grant

exploreCSR

## Student

PhD Fellowship

Student Travel Grants

Student Researcher Program

*Please refer here for a full list of program offerings.*

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# UR in Taiwan: Status Update (2023)

| Research Grants | Conference Sponsorship | GCP Credits program | Workshops |
|---|---|---|---|
| 17 Projects<br>AI, Silicon, Hardware, Health | 7 conferences<br>SIGIR 2023, VLSI Design, ISIT, IEEE CTW, Multimedia Asia, COSCUP, AII Workshop | 3 Projects<br>AI, Mobile | 2 events<br>AI Boot Camp, Silicon/AI Workshop |
| PhD Fellowship | Student Researchers | Student Travel Grants | exploreCSR |
| 3 awardees<br>Health Research, NLP<br>2 from NTU, 1 from NYCU | 2 Students<br>Plus 1 under review | 17 awardees<br>ACL, CHI, CVPR, DAC, ICASSP, ICCV, ICML, ICRA,etc | 3 grants<br>NTHU, NYCU, YZU (new in 2023) |
| Exchange / Meetings | Publications | Visits | DEI |
| Several<br>Project meetings, etc. | Several papers<br>From research collaboration | Several<br>Campus + Google office | Female, Young<br>5 faculty members and 5 students |

# A Milestone in May 2023: Collaboration Announcement

- Announcement by National Cheng Kung University on May 2, 2023 [link]
- Announcement by National Taiwan University on May 4, 2023 [link]
- Announcement by Google on May 4 2023: 推動多項大學交流計畫幫助台灣科技發展[link]

# Thoughts for Next Steps (2024)

- AI: **Generative AI and LLMs**, as the priority

- Keep going other areas including Silicon and Hardware technologies

- More opportunities on interactions including conf. / workshop sponsorship and student travel grants

- Fostering research DEI

- Co-develop the future talents through programs like Student Research Program

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# Program / Collaboration Examples

# Research Grants

**Working model**
- Research Grant, not for open call, but nominated by Googlers (basically Google research scientists or engineers).
- Strong ties between Google research teams and academic teams working on areas that are of mutual interests, for example: AI/ML, NLP, Speech, Mobile, system, etc..
- A way to deepen the research collaborations based on prior interactions, targeting long-term collaborations.

**Timeline**
- Rolling basis
- Googler to submit application with the proposal [template] when there is mature idea.

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# Conference Sponsorship

- Sponsorship to both international or domestic research conferences, with the relevance to Google research, for example: AI/ML, NLP, Speech, etc.
- Request has to be submitted by Googlers on behalf of the external requester.
- Funding support based on needs, typically a few thousand US dollars.
- How to request? The process as below.

**Step 1**: Please reach out to Google Contact to help submit a sponsorship request on behalf of you.

**Step 2**: Google UR team will receive the application and then connect with you to request more details.

**Step 3**: Based on the detailed information, Google UR team will collect the review feedback by the review committee to make the decision.

**Step 4**: Approved or not, there is a message of communication on the decision.

**Step 5**: If approved, then Google UR team will follow on for payment. And invite Googlers to join the conference with the free tickets based on the sponsorship benefits.

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# GCP Credits Donation

**If {GCP Credits value} > 5000 (US$), Then**

- Reach out to Google Sponsor or Google Contact through email to apply for GCP Credits on behalf of you.
- Please provide following information:
    - Purpose (or title of research):
    - Abstract or Description of research (1-2 paragraphs):
    - Total Credit amount requested (in USD): Please use the GCP calculator to determine the credit amount: https://cloud.google.com/products/calculator/ :
    - GCP calculator screenshot (please keep the screen from previous step):
- Google review may take a few weeks before decision is made.

**Otherwise {GCP Credits value} <= 5000 (US$), Then**

- Directly apply for the GCP Credits by filling in the application form online.

# exploreCSR award

## Fun AI Winter Camp @ NTHU (2021&2022 awardees)

***PIs: Min-Chun Hu, Hung-Kuo Chu, and Tse-Yu Pan
Cooperated with Alvin Wen-Yu Su (NCKU) and PAIA***

**Objectives:** We aim to support students in:
1. Acquiring new knowledge on Game AI with inspiring talks and tutorials with easy-to-follow examples
2. Brainstorming and modifying the baseline models to create their own Game AI models
3. Forming a study and research group in the field of Game AI



## Explore AI @ NYCU (2022 awardee)

***PI: Carrson C. Fung***

**Objectives:** aim of this project is to inspire and encourage Ukrainian high school and undergraduate students to study the field of signal processing for machine learning. Specifically
1. Hosted a 2-week virtual workshop for 20 students in Ukraine and local Ukrainian students to explore AI at NYCU, and completed a project that is commensurate with their skill level
2. Local students will also have a chance to visit several Taiwanese companies which uses machine learning in their products
3. 1 Ukrainian undergraduate student was invited to participate in our REU program for the summer
4. Details can be found at https://explorecsr.ece.nycu.edu.tw/



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