

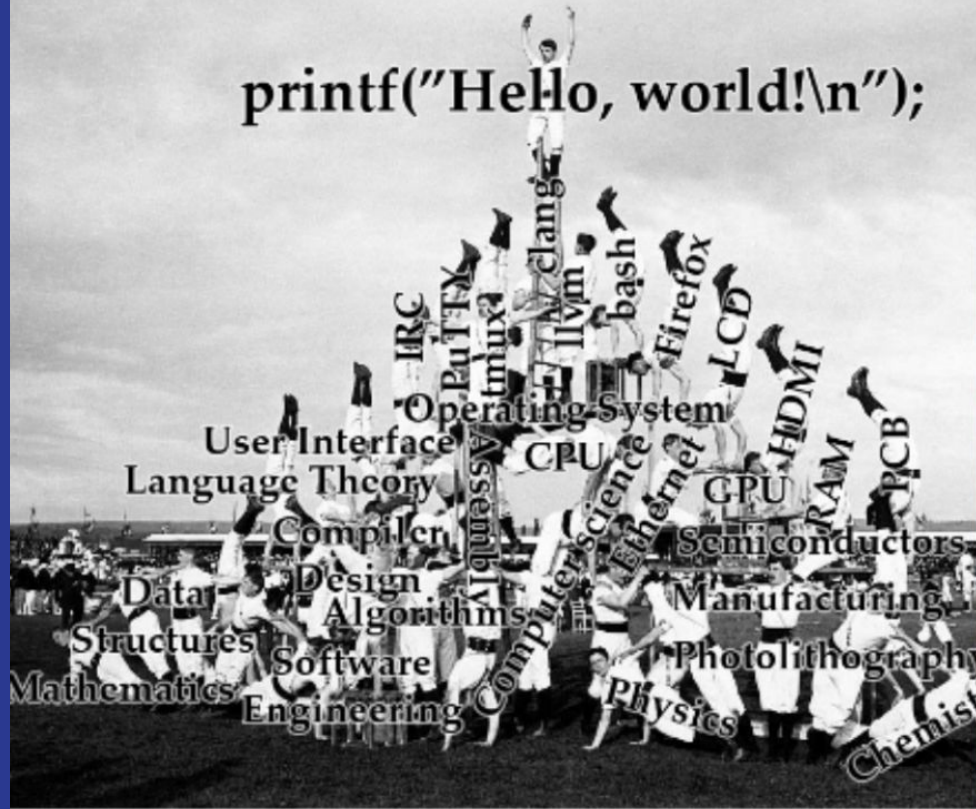
# Collaborations Result in Diverse Thinking, Novelty and Different Perspectives



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*Professor*  
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*Science and Technology,*  
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```
printf("Hello, world!\n");
```



Standing on the shoulders of  
giants



### Tip

All work is a product of  
collaborators,  
supervisors, students,  
and others all working in  
the Field!

# Profile at a Glance



2013

Appointed Assistant Prof.



2017

Appointed Assistant Prof.



2018

Assistant Prof.

2023

Associate Prof.

2024

Professor



Community Service - Associate Editor  
Steering, ACM SIGSOFT CARES, CACM



COMMUNICATIONS  
OF THE  
ACM



**The entire world's IT  
infrastructure**

**Open source  
software**

**Unpaid open  
source devs**

IT'S FREE





**Raula Gaikovina Kula**

*Professor,  
The University of Osaka, Japan*

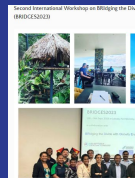


## 1. Software Ecosystems and Libraries

## 1. Developer Skills



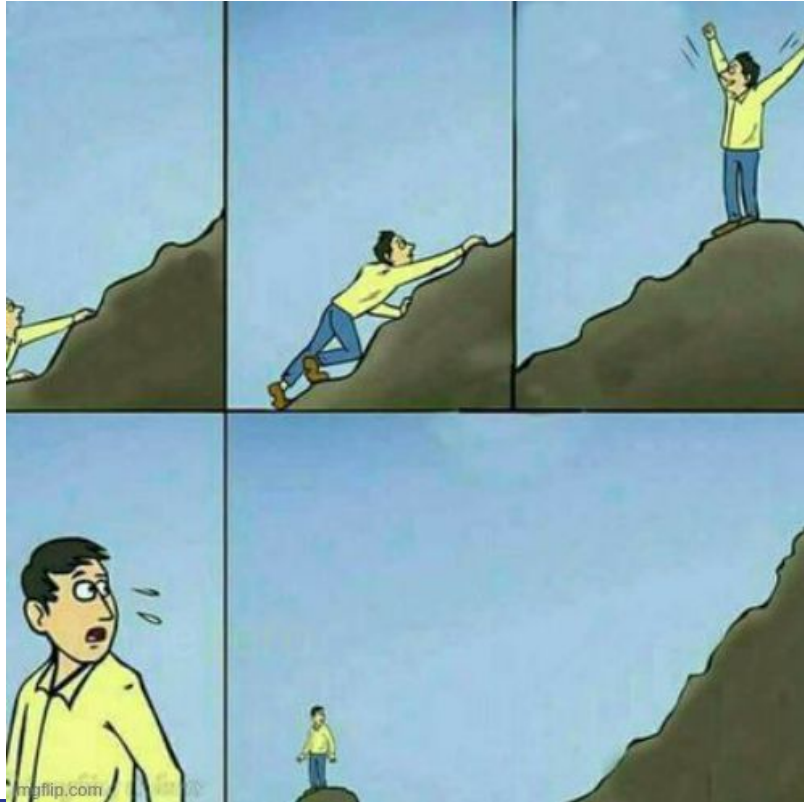
## 1. AI, Society and Software



*Where is the role of  
AI?*



# A Talk about Life After a PhD ....



# People in PhD



## Academic Perspective



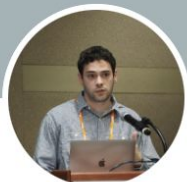
# Listing of 2 Biggest Worries of New Faculty




**Youmei Fan** · 1st  
Assistant Professor  
Nara Institute of Science and Technology ·  
Nara Institute of Science and Technology  
Ikoma, Nara, Japan · [Contact info](#)



**Profir-Petru Partachi** · 1st  
Post-doctoral Researcher in Machine Learning for  
Software Engineering  
National Institute of Informatics · UCL  
Tokyo, Japan · [Contact info](#)



**Olivier Nourry** · 1st  
Assistant Professor  
Osaka University  
Japan · [Contact info](#)



**Brittany Reid** · 1st  
Researcher  
Nara Institute of Science and Technology ·  
University of Adelaide  
Ikoma, Nara, Japan · [Contact info](#)

4:58 AM **raula-k** to prepare for my new faculty talk, what are your three biggest worries?in no order and I am asking the others too

# Answers!

- worry if we can guide students in the right way
- Worry if can balance work and life or do we have life 😂
- transaction from student to assistant Professor not sure mindset already transit too

Regarding the question just before the main call:

1. Language expectations (due to a non-English country/uni)
2. learning the grant process and timings (especially timings and filtering all the various uni announcements to what matters)
3. mentoring students/not repeating mistakes of my own mentors (can I even recognise those mistakes?)

i can give you #1: funding

- Teaching classes in a different language
- Finding enough topics for all students
- Getting all the students to publish to international venues



# Learning the ropes in Academia...

Switching Roles, writing grants requires having new, different perspective that takes time.

1. Experience (Put yourself in the action)
2. Mentorship (Interactive or Advice from Network)
3. Forming Role Models (Learning from afar)

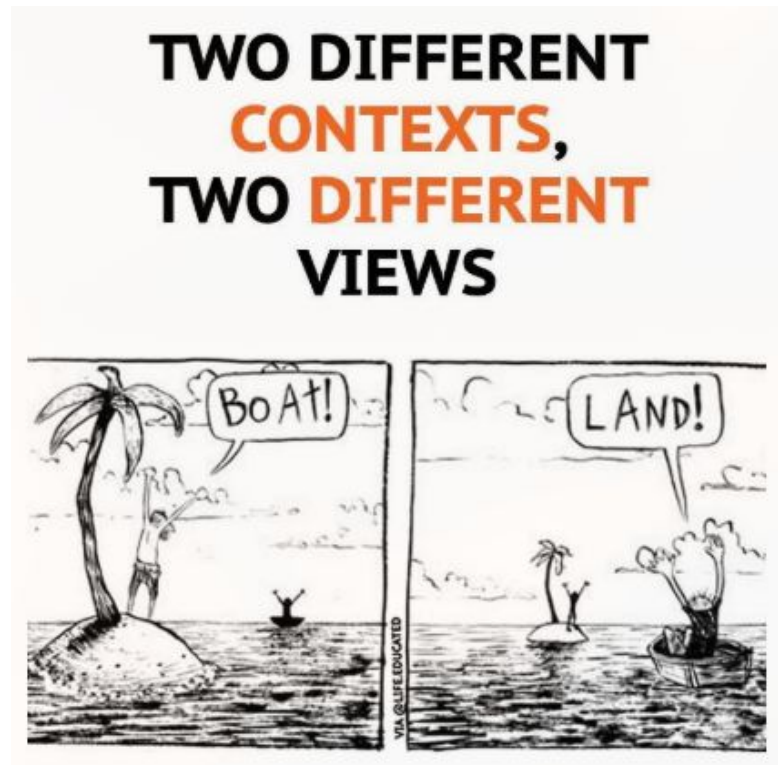


# How Diversity, Equity, Inclusion plays a role.

Look for Diverse Collaborations:

- Where to gain your experience
- Who you choose as mentors
- What feedback to take as advice

Comparison is terrible!



GenAI “cannot” substitute for expanding viewpoints, or can it? I think collaborations do better....



# Helpful Activities to activate Collaborations

1. Network at Conferences
2. Volunteer for Reviews, Community Work to get behind the scenes
3. Organize a conference, workshop, summer school
4. Explore new, different, less popular topics that interests you
5. Don't stop Learning!



Find your people in the community, but keeping your perspective

Learning to say no, but yes if yeah really want to...

-may result in Diverse Thinking, Novelty and Different Perspectives

# Diverse Thinking, Novelty and Different Perspectives

Results in:

1. Better Papers
2. Stronger relationships and sense of community
3. Career growth and reaching of personal goals?!?



# Example of the need for a new perspective!

## Disruptive Innovation of AI



### First International Symposium on the Future of Software Engineering

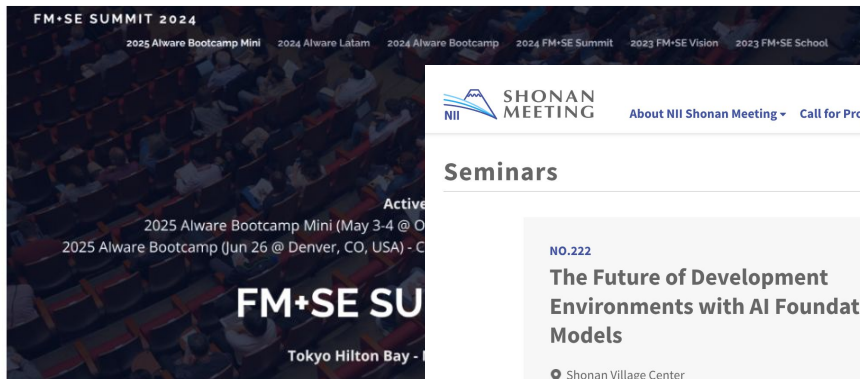
June 3-6, 2024, Okinawa, Japan

NO.176

### Foundation Models and Software Engineering: Challenges and Opportunities

Shonan Village Center

March 25 - 28, 2024 (Check-in: March 24, 2024)



About NII Shonan Meeting ▾ Call for Proposals ▾ Seminars Publications ▾

### Seminars

Archives ▾

NO.222

### The Future of Development Environments with AI Foundation Models

Shonan Village Center

October 6 - 9, 2025 (Check-in: October 5, 2025)



Example of the need for a new perspective!

**Disruptive Innovation of AI**

# 1st African Winter School on Software Engineering & AI

**ASEAI 2025**

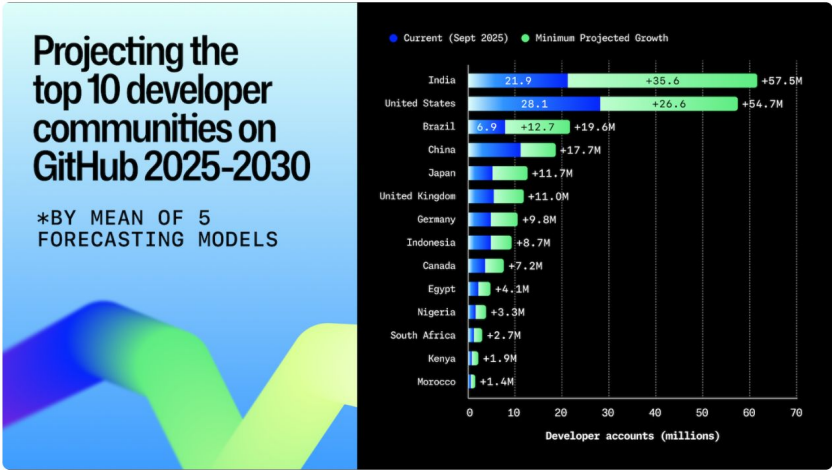
📅 November 24-26, 2025 | 📍 Novation City, Sousse, Tunisia (Hybrid)

# Tracking the top developer populations on GitHub (2020-2025)



		FIVE-YEAR TREND	2020 TO 2025 DEV COUNT	FIVE-YEAR CAGR*
1	United States	Steady #1	=10.2M to 28M	20.96%
2	India	+1 Spot	=4.5M to 21.9M	34.36%
3	China	-1 Spot	=6.1M to 10.7M	10.83%
4	Brazil	+1 Spot	=1.5M to 6.89M	33.27%
5	United Kingdom	-1 Spot	=1.7M to 4.8M	21.74%
6	Japan	+2 Spots	=1.2M to 4.5M	27.96%
7	Germany	-1 Spot	=1.4M to 4.4M	24.43%
8	Indonesia	+3 Spots	=0.9M to 4.37M	33.23%
9	Russia	-2 Spots	=1.4M to 4.16M	23.14%
10	Canada	-1 Spot	=1.2M to 3.46M	22.18%

Region	Stand-out markets	2024 to 2025 net new devs	What's fueling the boom
APAC	India, Japan, Indonesia,	+13M	Government skilling, AI-assisted local-language tooling. Japan, in particular, has embraced digital transformation in recent years, leading to a boom in developers.
LATAM	Brazil, Mexico, Colombia	+3.2M	Remote hiring by US/EU firms, fintech startup density
Europe	Germany, United Kingdom, France	+6.3M	Cloud infrastructure spend, AI investment, startup-visa pipelines
Africa & the Middle East	Nigeria, Turkey, Egypt	+3.4M	Increased mobile adoption, community bootcamps, LLMs that work locally



The results of our analysis suggest India will continue to expand its lead, reaching **57.5 million developers by 2030**, and accounting for more than one in three of all projected sign ups worldwide. The United States will be the second-largest community with more than 40 million developers expected, while Brazil (19.6M), Japan (11.7M), and the United Kingdom (11M) round out the top five.

Notably, emerging regions across Africa and the Middle East show momentum with **Egypt, Nigeria, Kenya, and Morocco all projected to add millions of developers in the coming years**. This points to a developer population that is not only growing but diversifying geographically at unprecedented speed.

<https://github.blog/news-insights/octoverse/octoverse-a-new-developer-joins-github-every-second-as-ai-leads-typescript-to-1/>

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