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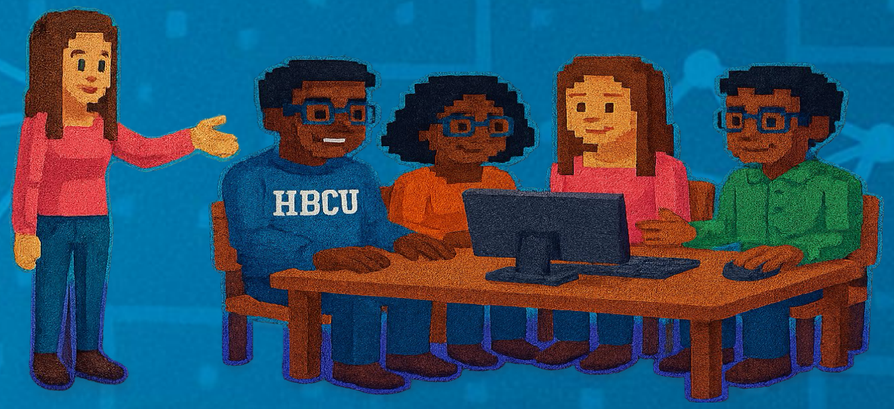
# CodeRunners



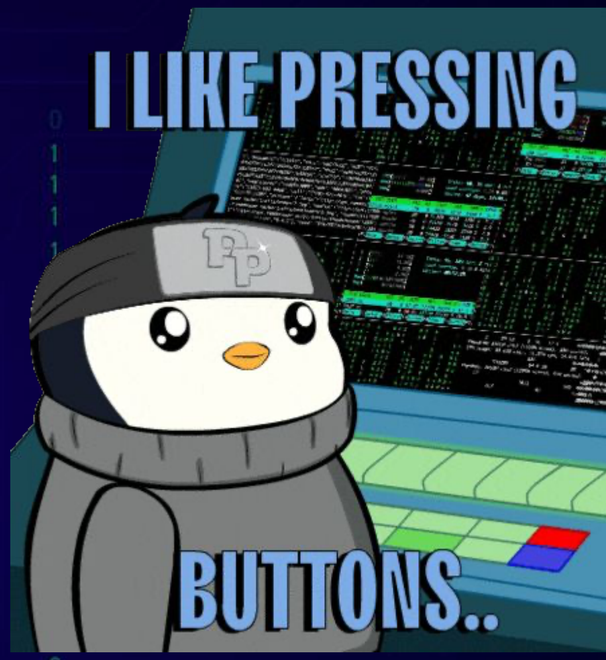

ADMI SGX3 omnibond

# CodeRunners

CODE RUNNERS

Team Members Name

- Iyana Jones
- Arghavan Noori
- Aaliyah Lockett
- Copernic Mensah
- Holy Agyei




https://on.soundcloud.com/u1r553T8KodM0Lj0j

# CodeRunners Key Milestones

## 01

Team formation, paper selection, and role assignment

Deliverables: Intro slide, README.md, GitHub repo with paper list and goals

## 02

Define reproducibility metrics and evaluation criteria.

Deliverables: Reproducibility scorecard (template), test plan

## 03

Evaluate reproducibility across multiple papers (ICSE/SC24)

Deliverables: Scorecards, logs, Python scripts for automated scoring

## 04

Build comparison dashboard

Deliverables: Streamlit/Flask portal with visual metrics for all papers

## 05

Submit final poster and presentation

Deliverables: Final poster, presentation slides, portal link, updated repo

# Team Roles

## & Responsibilities

**Iyana | Lead**

Tracks goals, edits README, manages daily progress, ensures overall project alignment.

**Arghavan | Model Analyst**

Compares model outputs, analyzes results, and scores reproducibility gaps.

**Copernic | Presenter**

Creates compelling visuals for the poster and presentation slides.

**Aaliyah | Experiment Engineer**

Sets up tasks, configures environments, and runs models for evaluation.

**Holy | Portal Builder**

Develops the interactive dashboard or website for the reproducibility scorecard and visualizations.

**Github**

https://github.com/SGX3CodeRunners/RealWorldBugs.git

# CodeRunners
# Project Overview and Goals

**Objective:**
Evaluate and compare reproducibility across multiple ICSE 2023 & SC24 papers focused on large language models (LLMs) for code understanding.

**Goals:**

- Score each paper using a standardized reproducibility framework.
- Build a public portal to visualize comparative results.
- Summarize findings in a Gateways 2025 poster.

# CodeRunners Progress

- Expanded from single paper to multi-paper comparative reproducibility study
- Designed and implemented a reproducibility scorecard (100-point framework)
- Currently generating Python code to automate scoring from paper content
- Challenge: Missing GitHub links in some papers limits full artifact scoring
- Streamlit/Flask portal under development to visualize paper scores
- All updates align with the revised project plan (Comparative Repro Study)

```
Paper ID: 18
Title: Validating SMT Solvers via Skeleton Enumeration Empowered by Historical Bug-Triggering Inputs
Score: 15
Artifact URL: https://github.com/CGCL-codes/HistFuzz
DOI URL: https://doi.org/10.1109/ICSE48619.2023.00018
Notes:
  - Code available on GitHub (assumed open-source license).
  - Docker/Containerization: Requires manual check of the repository.
  - Dependency Management: Requires manual check of the repository.
  - Build Instructions: Requires manual check of the repository README.
  - Specialized Hardware Support: Requires manual check of the repository.
  - CI/CD Pipelines: Cannot be inferred from URL. Requires manual check.
  - Version Control: Assumed via GitHub.
  - Comprehensive README: Requires manual check of the repository.
  - API/Data Schema Docs: Requires manual check of the repository.
  - Reproducibility Badge: Cannot be inferred from URL. Requires manual check.
  - Runtime Instructions: Requires manual check of the repository.
  - Result Validation: Requires manual check of the repository.
  - Public Dataset Links: Data accessibility uncertain from URL.
  - Data Preprocessing: Requires manual check of the repository.
  - Model Weights: Requires manual check of the repository.
  - Issue Tracking: Assumed via GitHub.
  - Discussion Forum: Cannot be inferred from URL. Requires manual check.
```

- Using chatgpt and manus ai, we created a python script in Google Colab that was able to run all of the papers through the scorecard. The issues we came across was it repeatedly listed all papers with a score of 13-15 unless we manually checked the Github repository.
- New approach: Semi-Manual (Hybrid) Approach (Recommended for Efficiency)