



Gaps In Software Engineering Education



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The Problem:

- Technology is rapidly changing and advancing
- This results in recent computer science graduates feeling unprepared when going to work in industry

Technologies Used:

- We designed the game using Python, HTML, and CSS
- Django
- PostgreSQL



Goal:

- Survey software engineers to find out what gaps there are in software engineering education
- Design ways to incorporate these gaps in computer science undergraduate curriculum
- Create a quiz game to see if undergraduate students are informed on these gaps that exist in software engineering education

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Home Game Resources

Project Information:
Welcome to the homepage for the Gaps in Software Engineering Education research project! This page provides some general information about this research project. Using the navigation buttons found on this page you can move on to begin answering some questions.

Purpose:
The purpose of this project is to determine if we can address what the software engineering industry perceives as gaps in students' education by informing them of these gaps and giving students proper resources to further explore these topics.

Game:
The game that each student involved in the study will play is a simple guessing game. You will be given several different types of questions that require you to guess as to what software engineering workers think the gaps in software engineering education are.

Relevant IRB Information:
VT IRB #21-954 WRONG IRB REPLACE WHEN WE HAVE NEW IRB

Principle Researchers / Contact Points:
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The Survey:

- The purpose of this survey is to learn what skills that recent graduates are lacking when they enter industry
- Asks about hard and soft skills that new hires know (ex. communication, programming, and teamwork skills)
- There is an optional interview to collect more data

The Game:

- The purpose of the game is to see what gaps undergraduate students think exist in software engineering education
- Inform the students on what gaps that people in industry say exists in software engineering education
- The game will quiz them again to see if the students get more questions correct the second time around

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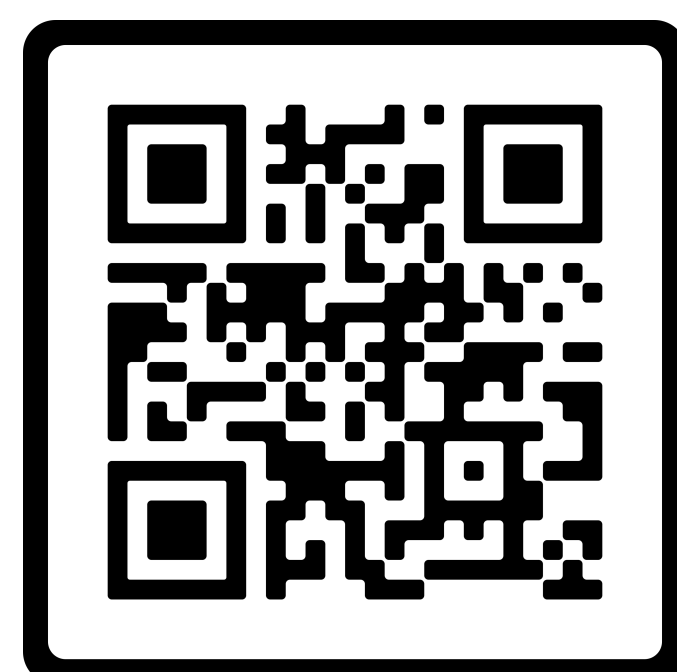
Questions marked with a * are required

* 1. What company do you work for?

* 2. What position do you hold within your company?

* 3. How many years of software development experience do you have?

If you are a software engineer currently working in industry, feel free to fill out our survey!



Survey Results so Far...

- Some of the gaps we have discovered so far (and their scores):
 - Hard skills - Testing and documentation (1.5)
 - Soft skills - Writing (0.5)
 - Programming Tools - Build and cloud development tools (1.0)

Plans for the Future...

- Continue to find software engineers to fill out the survey
- Analyze the data collected from the survey
- Complete/Finalize the quiz game
- Class study