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Github Education Lab Cat

## **Portfolios with Code**

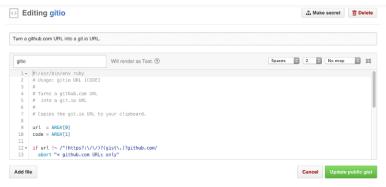
College admissions offices aren't just looking at essays and scores anymore. Top schools recognize the emergence of software projects as an important and accessible medium, useful for understanding applicant personality and aptitude.

When an employer evaluates an engineering candidate, seeing his or her work-product is even more important than a resumé. It is the most efficient way to gauge interests, skill-level, curiosity, and commitment. In software, these examples come in the form of source-code, usually stored on <u>Github</u>. And yet, university admissions have historically ignored projects in Science, Technology, Engineering, and Math (STEM), instead relying upon test scores to sort applicants.

In 2013, MIT made news with their <u>announcement</u> that they would begin to accept <u>maker portfolios</u> for undergraduate admissions. Their stated goal was to see how students "learn, create, and problem-solve in an unstructured environment." Portfolio examples established a wide perimeter of acceptability: "new origami designs, a chainmail suit, a potato cannon, a knitted fractal, or a computer program/app." Over the last 3 years, MIT has been leading the way with this multi-disciplinary approach as well as their openly sharing their <u>data and challenges</u> along the way.

Since that time, many schools have started accepting STEM portfolios, including Yale, Harvard, Carnegie Mellon, and others. Most of them use SlideRoom to receive these portfolios because projects can be viewed through a combination videos, code samples, screenshots, reports, and narrative content. This multi-media approach allows for different aspects of a project to be fully understood and shown with each applicant's unique voice. For instance, in the case of software apps, reviewers can watch a screencast, look at the code, and read commentary from the applicant.





A Gist is embeddable code. Schools that use <u>SlideRoom</u> may ask for this to be displayed next to a video of the app running and above an essay where applicants describe the project.

<u>Gists</u> are particularly useful in this scenario. Since evaluators don't have time to dive deep when reviewing projects — MIT spends about 3 minutes on each — applicants must curate the salient parts of their best work.

This act of curation touches on why portfolios are powerful in general. Not only does it provide a powerful lens for reviewers, but the process of building a portfolio is a unique kind of activity that combines the learning and assessment experience. It asks students become active judges of quality and includes them in the educational process of goal creation and fulfillment. This gives students control over their own learning directions and propels them to ask questions about what to learn next. Unlike grades, portfolios "permit instruction and assessment to be woven together in a way that more traditional approaches do not." (Leon Paulson 1991)



Github Repositories as Portfolios

<u>Github Education</u> acknowledged the prominence of software development within school environments by offering a set of tools specifically tuned to classroom settings. Students can store, organize, and develop a collection of their projects, while teachers can manage their class by giving assignments, collecting work, testing, and providing feedback.

Portfolios are the best medium to capture this process of curiosity, tinkering, invention, and self-realization. And the fact that portfolios require having a real audience helps students prepare for the real world. Whether this be peers, parents, an admissions office, or an employer, presenting a portfolio engages the student in the art of communication and storytelling. It allows them to share more complete insights about their interests, their experience, and evidence of their involvement. Getting others excited about their work will be a lifelong skill.

Salman Khan, founder of <u>Khan Academy</u> and author of <u>One World</u>
<u>Schoolhouse: Education Reimagined</u>, has been a strong advocate for this constructionist approach to learning:



testament of his or her ability to create from scratch, to make a solution out of an open ended problem."

## When Makers Apply to College

MIT's culture of making continues to expose how real-world projects seldom live within one distinct domain of knowledge...









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