Academic Honesty in Computer Programming

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Introduction

Adelphi University's Code of Academic Honesty (Code) states that "The University is an academic community devoted to the pursuit of knowledge. Fundamental to this pursuit is academic integrity. In joining the Adelphi community, I accept the University's Statement of Academic Integrity and pledge to uphold the principles of honesty and civility embodied in it. I will conduct myself in accordance with ideals of truth and honesty and I will forthrightly oppose actions which would violate these ideals."

In essence, it states that it is unacceptable to make up data, hand in work of others as if it were your own, or lie, or cheat. When working on writing assignments, the rules are fairly clear: if you let others write for you and claim it as your own, or if you reproduce or reference work of others without proper attribution, you are committing plagiarism. Plagiarism is dishonest, and as such, violates the Code.

Cornell University has an excellent write-up on academic honesty in computer science. You can read the full text at http://www.cs.cornell.edu/courses/cs1110/2014fa/about/integrity.php, but here is a quote:

> One of the key things to understand about programming, and computer science in general, is that is a writing-heavy discipline. When you create a computer program, you are writing a document, just like you write documents in an English class (or any class that involves a lot of essays). Therefore, many of the same rules that apply to writing essays also apply to computer programs, particularly regarding plagiarism.
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> Plagiarism is essentially a form of fraud. Every time you hand in a program in this course, you are representing it as the work of the stated authors […] subject to any exceptions that are clearly stated in the submission itself. To avoid committing plagiarism, simply be sure always to accurately credit your sources. To do otherwise is to commit fraud by claiming credit for the ideas and efforts of others.
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> It really is that simple. If you have accurately acknowledged your sources, you are not committing plagiarism. You might not be doing what we asked you to do (if we asked you to work in separate groups), but you are being honest and are therefore not in violation of academic integrity. When you hand in an assignment without remarking on others' contributions, you are claiming credit for everything in it as your own creation. To turn in code that someone else invented and claim it as your own is fraudulent.

Detection

Most of the professors who teach coding classes have been doing this kind of work for a long time, and they know what to expect from student's submissions. Sudden deviations in performance of quality of work, or solutions that are clearly based on publicly available source stand out like a sore thumb. You may take our word for that!

Since everyone is working on the same assignments, some level of similarity between your solutions is expected. However, when there is too much common code between multiple people, that may be a red flag.

If we suspect dishonesty, we will call you out on it. We might talk to you one-on-one, or maybe ask you to explain certain sections of your code and have you tell us what it does, how you came to it, or why it works. We might also ask you to redo some of the work in a controlled environment to see how well you can reproduce what you can really do.

In most cases, that answers any questions. If we do call you out on suspected dishonesty, and you did indeed bend the rules a bit, your best bet is to own up and accept the consequences.

Code sharing

Of course you can put your code on GitHub, on BitBucket, or on any other version control and document collaboration site. Making code available to others is not a violation of academic honesty. As a matter of fact, keeping track of all the code you ever wrote makes for a great e-portfolio. It shows growth over time, and will greatly help you re-use your own code. By the time you are ready to graduate, you'll be surprised to see how much code you wrote, and how good you have become since freshman year.

However, using code written by others without attribution is a violation. Note that if you share your code without assigning a clear license, others may also end up using it without asking you first.

Note academic honesty is only one part of the equation. If the assignment clearly says that you are not to collaborate or use external websites, you might still be violating class rules.

Scenarios

So, what does that mean? Let's consider a few scenarios:
You Googled the problem and ended up at StackOverflow. You used the code there to improve your own work. Not a problem! As long as you attribute the post(s) on StackOverflow that you used. Put a link in the program's comments and say what you did.

You worked with a classmate on the assignment. Again, not necessarily always a problem. Make sure you attribute your friend in your code. Your professor will make the determination if

this was substantial enough to be violation of class rules. For example, suppose that you are implementing a binary search in CSC172 and you mixed up the conditions. You did the work yourself, but a friend helped troubleshooting. Just drop a comment in saying that *John helped me debug this condition*, and most likely, there is no issue at all.

You found the solution to your problem on StackOverflow and handed it in after changing the names of a few variables and/or methods. Now we have an issue. You did not do your own work, and you did not attribute the sources. That's an academic honesty violation, and it may have serious consequences.

Before implementing a particular algorithm, you read up about it on Wikipedia, and found a full-code or a pseudo-code implementation there. No professor is going to penalize you for doing your own research. However, make sure to attribute the page, and make it clear what you used from there, and, more importantly, what your own work was.

Questions

When in doubt, talk to your professor **before handing in** your assignment!