**FYP/FYT Essay on Professional, Ethical, Legal, Security, Social Issues and Responsibilities**

As a Computer Science major graduate, in additional to technical skills, you should also have an understanding of professional, ethical, legal, security and social issues and responsibilities.

Based on or extended from your FYP/FYT work, write an essay to relate your understanding on a few sample areas listed.

Refer to <https://noordaveau.wixsite.com/ethicsessay> for further suggestions in essay writing.

**Sample areas that you might want to explore and reflect (but not limited to)**

**Software Technology**

What is open source code? Licensed, Copyrighted, Credited or Public Domain. Should a company release code to be freely used and modified? Do you use any open-source code?

**Database, Data Management and Big Data**

Any data on human subjects inevitably raise privacy issues of storing, using and analysing the data.

How to guarantee the safety storage of data? For what purpose was the data originally surrendered? For what purpose is the data now being used? What are the choices given to an affected party? Who owns the resulting insight? What are their responsibilities towards it in terms of its protection and the obligation to act?

**Vision and Graphics**

Your system may collect people’s behaviour through tracking their daily life, gestures and emotions. Have you considered safeguarding their privacy and security of the collected information lest they are leaked?

**Artificial Intelligence**

Should there be robot rights, which are the moral obligations of society towards its machines, similar to human rights or animal rights?

What would be the profound effects AI brings to human society? Will the machine power be threat to human?

**Computer Games**

Developers of games should take into consideration the influence it caused to the community. For example, violence from graphic, physical and sexual; stereotyping in age, race or gender? Do games educate? Should they be relied upon?

How do gamers become addicted? What does the industry do to help this?

Have you addressed these concerns when creating your game?

**Mobile Application**

When you develop your mobile app, have you considered: 1. If the application will do something in the background, let the user know, and let them turn it off. 2. Always use the least-invasive method of collection possible. 3. Properly disable invasive data collection when it is not needed.4. If information is collected, store it securely. If it doesn’t have to leave the phone, store it locally in a protected area.

Why the above need to be enforced?

**Grading Rubric**

Length: Number of words 600 or more.

| **Component** | **Percen-tage** | **Exemplary (A- to A+)** | **Competent (B- to B+)** | **Needs Work (C- to C+)** | **Unsatisfactory (D, F)** |
| --- | --- | --- | --- | --- | --- |
| **CONTENT - Statement of Purpose**  System and goal relevant to ethics are defined. Identify the technical area of your (two) issues: dataset, software, gaming, database, vision and graphics and AI. Identify the ethical area: transparency, bias, sustainability, privacy, security, confidentiality. Key findings are stated. Two problems are identified. Two ethical solutions are given. Is there transparency in system design, data and process? Is there indication of integrity, fairness and honesty? Is the work free from bias? | 40% | System goals relevant to ethical considerations are clear. Statement of Problem is well defined. Technical and ethical areas are clearly identified.  Findings are discussed coherently. Problems identified are addressed with reference to integrity, transparency and bias.  Key takeaways are clear. | System goals are implied and not elaborated on adequately. Either technical or ethical solutions are identified (only one) or implied. Findings are not discussed sufficiently. Problems are not discussed with reference to integrity, transparency and bias. Key takeaways are unclear. | System goals are not defined.  Technical or ethical solutions are implied and not stated.  Findings are not discussed coherently. Problems are not clearly stated. Key takeaways are unclear. | System goals, ethical issues and main points are not clear. Findings are not discussed. Problems are not stated. Intent is unclear. |
| **RELEVANCE - Addressing the Ethical Issues**  Analyze the ethical issues which arise from your case? Address and elaborate on the issues. What ethical rules (one or two) were breached? The issues and solutions are interpreted against a benchmark like HKIE, ACM or GDPR. Overall opinion is provided. | 30% | The solutions are specifically interpreted against benchmark like HKIE, GDPR and ACM.  The solutions are clearly explained in relation to the system. | The solutions are generally interpreted against benchmark like HKIE, GDPR and ACM.  The solutions are generally connected to the system. | HKIE, GDPR or ACM are mentioned without connecting them to solutions. The solution is not connected to the system. | HKIE, GDPR and ACM are not mentioned or are mentioned but are not relevant to the either system or ethical solutions. |
| **CLARITY - Logic and Cohesion**  Background is adequately provided (what is your work about?). Statement of purpose is clear. Logical and coherent with a good balance of description and analysis of system and ethical issues. Critical thinking based on evidence: analysis, synthesis, conclusions. Analytical essay format is used and supported with evidence. | 30% | The argument is logical, coherent with a good balance of system description relevant to the ethical issues raised. Critical thinking based on evidence, analysis, synthesis and conclusions are clear. Paragraphs are well developed. The analytical essay is written based on SPSR - Situation,  Problem, Solution and Response. | The argument is skewed either towards system description or ethical issues. There is evidence of two critical thinking skills - analysis, synthesis or conclusions. Paragraphs are sufficiently developed. A few parts are Analytical Essay SPSR format is evident. | System description and ethical issues are vague or not covered. There is some evidence of critical thinking skills. Paragraphs are not developed.  Arguments are not based on analytical essay format. | Incoherent and lacking in structure.  Opinions are personal and not based on evidence. Lack of overall clarity. |

Essay template last updated on 2023-10-04.

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| Name |  | Student ID |  |
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| Project Code |  | ITSC a/c |  |
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