e-Portfolio Resubmission: https://bmpang.github.io/RMPP_PCOM7E/

Reflection on Resubmission for the RMPP Module

Software engineering as a career demands that we rise to challenges that extend beyond solving technical problems. From ethical dilemmas in product development, statistical rigor in experiments, professional networking that takes place outside of one's office and company, or the practical difficulties of balancing work and study, developers contend with lots of challenges other than development. After taking this module and working on the resubmission, I feel that there were a few core points that surfaced repeatedly in the course.

A major one of those was the ethical considerations of engineering. Oftentimes the pressure to deliver new products quickly can cause headaches for developers as they try to build things the ‘right way’ (Sahu, 2025). In my own experience, one example of this was an instance where a product manager used staged environments in a closed beta to simulate nonexistent functionality as a way to get customer buy-in. That goodwill was used to justify more investment to actually build out the product but it misrepresented the technical capabilities of the product to real customers. While this served the short-term business goals of the organization by getting more funding and resources, it raised ethical concerns about transparency and honesty that I feel would clash with the ACM’s Code of Ethics (Association for Computing Machinery, 2018).

On that note, learning about the UK's approach to codifying ethics in computing through institutional frameworks was very interesting to me. I felt that both the ACM and the BCS documents that we studied in class served as a constant reminder that I don’t think are typically echoed at Big Tech firms or startups in the US where the goal of

delivering fast is held above anything else (Mardi, 2018). I feel that bringing an organizational level of responsibility to the US' tech industry could greatly benefit this issue, though I also worry that the US firms have scaled in a way where they may have already become unchecked (George, 2023).

Beyond ethics, statistical analysis was another area that I enjoyed learning about and reflecting on the differences between what I learned and what I've experienced in my career. The worksheets we did in the module about statistical inference differed in essence from what I have personally usually done in experiments at work; A/B testing through feature flags or red-blue deployments are the most common way I have seen companies validate hypotheses. But these methods, while they provide valuable real-world data about customer preferences, are fundamentally different. I realize that they involve gathering results after a product - whether it is complete or in early development - is given to customers as opposed to using inference to test hypotheses before product development begins.

I would like to work on a more greenfield project where I have the opportunity to use more rigorous statistical analysis earlier in the Software Development Life Cycle (SDLC). However I also know that at most companies I worked, there are "scientist" employees that are typically Math PhDs that spearhead those efforts (Damásio, Mendonça, & Silva, 2023). Still, being able to collaborate with those personas in that phase of project planning would be a very enjoyable experience.

Another engineering experience I learned about during this module that I would like to seek out would be one involving work fully outside my fulltime job. Active participation in the wider industry, whether through involvement in professional groups,

research contributions, or open-source projects, is a growth opportunity I haven't yet pursued. While I have previously completed and carried out patented research on my own, it was on company time and dime while working at a financial institution. Doing a similar initiative either for the edification of the industry at large or contributing to a FOSS repo is something high on my todo list. Unfortunately, the very real time constraints I deal with can make this challenging, but considering the enjoyment and potential benefits make me want to try prioritizing it in the near future.

Speaking of those time constraints, throughout this MsC program I have been constantly learning more and more about the struggles of pursuing advanced studies while working full-time. In particular, this course challenged me to the point of demanding resubmission. This past winter unfortunately lined up with a critical product release deadline at my job where my team was trying to release a brand new industry leading product by the end of the company's fiscal year. This led to two or so months of 60+ hour work weeks which made participation in the course quite difficult especially given the holiday season. Time management became paramount in this situation and when I dropped the ball I felt that I had to prioritize work.

That decision compounded with some poor misunderstandings on my part; for instance, the e-Portfolio had either always been optional in other modules I took or graded with very different criteria like in the SRM course. When I had to carve out more time for late work nights or take cross country trips to meet with other offices, I thought it would make sense to sacrifice some of the portfolio activities throughout the course. In the future, I would like to work on my time management and awareness skills to try to avoid situations where I have to pick one of these pursuits over the other and also, in

the times where I will inevitably have to sacrifice something in my scheduling, be more aware of the impact of each option.

Of course, I greatly enjoyed the research teachings in the module as well but as I am resubmitting this reflection I thought it would be best to focus on some of these other topics and avoid overlap with my original paper. In conclusion, I found it really edifying to go over the non-technical challenges and concerns that face industry professionals. I'm excited to grow my career by exploring the problem-spaces that they offer. At the same time I'm intent on developing my individual skills as I feel I have identified ways that I failed to meet the challenge on my original submission for this course.

References

Association for Computing Machinery (2018). *ACM Code of Ethics and Professional Conduct*. [online] Association for Computing Machinery. Available at: https://www.acm.org/code-of-ethics.

Damásio, B., Mendonça, S. and Silva, E., 2023. Developing science and technology–the role of Big Tech.

George, A.S., 2023. Silicon valley rising: how big tech may eclipse nation states. *Partners Universal Innovative Research Publication*, *1*(1), pp.102-119.

Sahu, S.K., 2025. Ethical Agile: Integrating Business Ethics and Corporate Social Responsibility Into Agile Project Management. In *AI-Powered Leadership: Transforming Organizations in the Digital Age* (pp. 163-194). IGI Global Scientific Publishing.

Vardi, M.Y., 2018. Move fast and break things. *Communications of the ACM*, *61*(9), pp.7-7.