## The A-Team: Problem Statement Drafts

**Provide 2-3 problem areas of your own choosing, under your name, so we can pick what we’d like to try and work on for our project, which will be implemented in some sort of Web Solution.**

Our Team’s Problem Area:

**Imposter syndrome and difficulties getting and receiving help while learning**

Problem 1:

**Step 1:** State the Problem:

University students can fall behind in their studies and classes due to many different reasons such as family situations, sickness, mental health issues, and more.

**Step 2**: Concrete example of the problem and problem causality.

Sometimes, when students get overwhelmed they don’t reach out for help and their grades slip. This has proven to be a hard cycle for struggling students to get out of and can become a difficult feedback loop. In some cases, struggling students feel as though there is no choice left but to change majors due to this perceived difficulty.

**Step 3**: Describe prior solutions

Prior solutions to this previously stated problem can be seen through tutoring programs, CS help labs, and a variety of media outlets like discord and even instagram and facebook.

**Step 4**: Describe a gap in prior solutions

Although these solutions can be useful to a certain extent, there are indeed gaps to them. A gap for these situations is that the students themselves have to take the initiative. Prior solutions solely require students to help students, there is no higher involvement from the department, the professors, etc.

**Step 5**: Pose a question for how do we solve this problem by addressing the gap within some constraints

Given the limited resources and time constraints of both students and professors, how can we implement a proactive, collaborative system that effectively identifies the difference between students genuinely struggling and those not putting in effort, ensuring timely interventions to support and guide students with declining academic performance?

Problem 2:

To fix:

* Casualty is stated, but not

**Step 1:** State the Problem:

* The lack of structured transition processes for leadership roles and responsibilities in community-building activities and the lack of faculty support and involvement in these activities have led to discontinuity of community between students of different years (freshman-senior) within the computer science program/department.

**Step 2**: Concrete example of the problem and problem causality.

* There currently isn’t any sort of structured mentorship program, either between incoming students and upperclassmen or undergraduate and graduate students
* Current online communities are very disorganized; professors don’t participate or check-in, and there’s very little interaction between professors and students, or even the students themselves
* A lack of social or club events, period. There is no natural way for students to interact with each other outside of class. Many opportunities for social connections were disrupted by the appearance of COVID-19 and there have not been added processes to rebuild that.
* Overall, students don’t really have the time or effort to grassroots these sorts of events themselves outside of the community discord

**Step 3**: Describe prior solutions

* There doesn’t seem to be a history of close involvement or interaction between students and professors, and the one club computer science used to have, the Cyber Security Club, went over to the Electrical Engineering department, because no computer science professors were interested in sponsoring the club anymore.

**Step 4**: Describe a gap in prior solutions

* The largest gap is that most of the prior solutions no longer exist
* Not a lot of professional development to keep students interested and engaged in the industry/field as a whole
* Not much (if any) involvement from the department administration or professors; there’s a very “US vs THEM” mentality between the students and the academics

**Step 5**: Pose a question for how do we solve this problem by addressing the gap within some constraints

* How can we design a sustainable mentorship and community engagement program within the Computer Science department that involves both professors and students, addresses the continuity of community across academic years, fosters professional development, and is adaptable to the time constraints of its participants, while reducing the perceived divide between students and faculty?

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