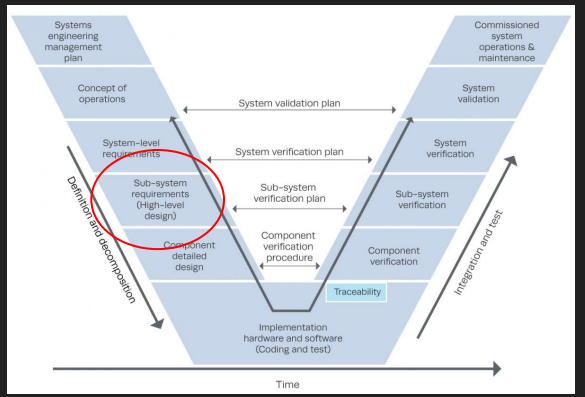
General Motors
Hardware Product Engineering Internship 2020

Alex Xu

My Team/Role

- Team based in Warren, MI (GM's Warren Technical Center)
  - Hardware requirements for Vehicle Body Electronic Components/Subsystems
- Worked closely with design, program, and manufacturing teams to develop hardware requirements
- Worked at the beginning of the systems engineering "V" model



What I did

- Internship assignment (2 projects):
  - Develop requirements for a vehicle interior lighting feature
  - Determine serial signal usage in a new electronic control unit (ECU)

- Impact:
  - Customer facing lighting feature going into future Cadillac electric vehicle
  - Commercial third party-facing product, impacting GM’s T1 truck product lines

Learnings

Systems Engineering

- Learned the systems engineering process, the processes, and the people involved with developing a vehicle product

Cross-functional collaboration

- How to lead close collaboration with non-engineering teams to achieve a goal

Putting the user/customer first

- Considering user experience and safety is key

Challenges

Working under COVID-19

- Internship was remote due to pandemic.
- Learned how to work effectively in a remote-first environment

Getting started / First Internship

- Learned how to best seek clarity and ask the right questions
- Knowing what I don’t know is an important first step to success.

Takeaways

- Returning to GM next summer as an engineering intern
  - Moving into software to further explore my interests and learn as much as possible
- I felt that I enjoyed working in a professional, mission-oriented environment.
- Reaffirmed my interest in working on consumer facing products.
- Improved on technical and soft skills:
  - Time/project management (working simultaneously on two projects)
  - Networking and reaching out to colleagues
  - Professional presentation to technical and non-technical audiences