Personal Development Plan:

By Ian Wilhite

Vision Statement:

My vision is to lead and innovate in the field of robotics and control engineering, developing cutting-edge solutions that enhance the intersection between technology and humanity. I aim to create systems that not only drive efficiency and precision in industrial applications but also improve safety and accessibility in critical areas such as healthcare, disaster response, and sustainable infrastructure. By fostering collaboration, engaging in continuous learning, and adhering to the highest ethical standards, I strive to bridge the gap between emerging technologies and the needs of society, ensuring that the advancements in robotics serve as a force for good in the world.

Note: struck through items were placed on the plan as a part of an earlier revision and have been accomplished since being initially added.

Development Themes

- Learning
    1) 2025-2026: I will obtain relevant certificates in the immediate future to demonstrate to employers and institutions of higher education proof of my tangible skills.
        a) ~~Study for the Certified SolidWorks Associate certification (CSWA) and sit for the exam by December 2024 (free in the Zach FEDC)~~
        b) Utilize online certificates to learn and recognize skills that I wish to learn such as:
            i) ~~2024: Matlab Onramps Certification~~
            ii) 2025: Linkedin Learning Github Essentials
    2) 2026-2028: I will obtain degree(s) to demonstrate my knowledge to employers.
        a) 2026-2028: Maintain efforts in coursework and monitor degree plans to ensure meeting appropriate requirements. I will maintain a semesterly GPA above a 3.5.
        b) 2026: I will graduate in May of 2026 with a Bachelors in Interdisciplinary Engineering.
        c) 2027-2028: I will either graduate from an A&M Masters program in May of 2027, or a reputable non-A&M Masters program in May of 2028.
    3) 2029-2031: I will obtain professional licenses to certify the quality of my work.
        a) Take the FE exam in 2026/2027 and begin the working hours to qualify for the PE exam.
        b) Prepare for and take the PE exam in 2030/2031 (>4 years after FE)

    c) Begin hours for Project Management Professional (PMP) Certification in 2027 (Only if relevant, PE/PhD is plenty, and although another certificate would help, it would not be particularly relevant)
    d) Prepare for and take the PMP exam in 2030/2031 (>3 years of work)
- Networking
    1) 2025-2027: I will be actively involved in a student chapter of a professional society in school to find connections to my peers as well as internships and full time employment.
        a) 2024: I will uphold my office as an executive, and continue to plan and execute events for the remainder of the 2024-2025 academic year.
        b) 2025: I will run for president and use the opportunity to advocate for structural changes to our events calendar to better engage new members.
        c) 2025-2026: I will remain involved in the organization by remaining engaged in leadership, and being engaged in the big/little program.
        d) 2024-2026: I will attend the SEC and ASME career fairs and industry nights to learn about and network with companies that hire Controls, Automation, and Systems Engineers.
    2) 2026-2029: I will engage with professional societies for conferences, networking events, and professional growth opportunities.
        ~~a) NERC - UMASS 9/2024~~
        b) IEEE conferences: ICRA 5/2025
        c) TEROS 4/30/24 @UT
        d) Ubiquitous Robotics (UR) Conference 6/2/2025 @ TAMU
    3) 2027-2029: I will find ways to support student chapters of professional organizations through mentorship, networking with recruiters, and technical consulting
        a) I will be engaged in professional networks through the TAMU Industry Advisory Council; ASME national mentorship programs; any company specific mentorship programs
    4) 2024-2030: I will develop a respectable online presence through the use of social media platforms to make myself visible to employers and
        a) 2024: Upkeep Linkedin, maintain a positive image on Instagram.
        b) 2025: establish personal projects Instagram/Youtube account.
        c) 2026: Github personal academic website.
        d) 2027-2028: I will maintain a consistent image and watch for new emerging popular technologies.
- Experience
    1) 2025-2026: I will participate in interdisciplinary collaborative projects to apply my skills early in my career
        a) 2024: set project objectives and tasks for DRON project with TURTLE
        b) 2025: find additional personal projects relevant to robotic employers, potentially with publishable content
        c) 2026: find an undergraduate role in a research lab where I can collaborate in robotic projects with a novel purpose

    d) 2025-2026: identify persons for a robotics-related senior design project
    e) 2026: successfully deliver a senior design project.
2) 2025-2027: I will find early career opportunities that allow me to learn a variety of skills, ideally in a rotational program
    a) 2025: I will find and complete an internship or research fellowship that allows me to work professionally in the robotics field.
    b) 2026: I will find and complete a research oriented program that supports research for graduate programs.
    c) 2027: I will find summer programs that support masters programs by bringing varied skills, ideally through travel or rotational programs.
3) 2027-2030: I would like to find roles where I can learn in a hands-on manner by applying lessons learned to tangible projects - ideally in a research or a private R&D environment
    a) 2027-2030: find work post-masters either in industry working in R&D or academia in a PhD program

- Leadership
    1) 2025-2026: I will look to student organizations for leadership opportunities in *social* and professional development roles
        a) 2025: continue to serve as ASME Secretary; support the goals and ambitions of my officers; ensure to utilize events as opportunities to meet new people.
        b) 2026: look for additional roles to network within electrical, mechatronic, and interdisciplinary groups.
        c) 2025-2026: look for leadership positions within professional organizations in robotics-related groups.
    2) 2026: I will look to student organizations for leadership opportunities in *technical* and project management style roles
        a) 2025: I will continue as a project lead in TURTLE and effectively coordinate my subteams to grow my skills in technical leadership, my understanding of autonomous systems, and help develop the skills of others.

Last Updated: December 2024.