

Meet Jack Patten, GHS Class of 2022



When Jack graduated from GHS he knew two things for certain: one, that he was passionate about STEM, and two, that he loved sports. Jack was accepted into Worcester Polytechnic Institute (WPI), a private research university in Central MA that specializes in STEM and project-based learning.

Jack's interest in robotics and engineering started at GHS, in GEF-funded labs and programs that allowed him to explore and invent. His career as a high school varsity athlete has led him onto the WPI soccer fields, where he rounds out his academic talents with his talents on a sports team. Jack is going into his sophomore year ready to begin coursework for his major and give it his all on the soccer field.

What are you studying right now in college?

I'm majoring in Mechanical Engineering. I played varsity soccer for my freshman year of college, and I'm going to be going down to club next year. In terms of coursework, I've done Calculus, Differential Equations, Physics 1 and 2, Intro to Material Science, and a couple humanities courses mixed in, like history and writing.

While you were in Gloucester Public Schools, what were your main areas of interest?

My freshman year I took a biology class, and then shifted towards the **engineering**-specific classes my sophomore year. I started taking robotics with Kurt Lichtenwald (the GHS robotics teacher), and I took electrical engineering my junior year. My senior year I took physics and did an **independent study in robotics**. I've had the same field of interest from high school into college.

What about the robotics courses made you want to pursue STEM initially?

We used VEX robotics, which meant we got a big box of parts and would build our own robot, and code our own robot to do different things in the C++ coding language...Being able to mess around with code on a computer was really interesting, and I really looked forward to going to that class. We had to code our robots, which each had an arm and a claw, and we did these projects where we had to have the robot follow a path, pick up a ball, place the ball on a platform, and repeat. In electrical engineering, we worked with breadboards and LEDs, on smaller-scale projects where we would code the lights to light up in different patterns.

Were there any extracurricular activities you enjoyed?

I was a big athlete, and that took up a lot of my time. I played 3 seasons of sports. I also worked on projects in my independent robotics study. One of my friends and I stayed after school and worked on different projects. We had this incubator box that we **3D-printed**, and we put a bunch of devices in there that could calculate the temperature and humidity in the incubator, with an egg in it.

Do you have any idea where Mechanical Engineering might lead you post-college?

I've talked with a lot of people about defense companies, like Raytheon, working with manufacturing and testing products for the military. That seems interesting to me. I also have a big interest in computer engineering and design. I took a couple **CAD (Computer Aided Design)** classes in high school, and I'm taking a couple more in this upcoming year. Those are two of the big pathways I could see myself going down, if everything works out at WPI.



Gloucester Public Schools

This interview was conducted by GHS student Aurelia Harrison in 2023, as part of a GEF Summer Internship. GEF funds a wide variety of dynamic programs in the arts, STEM, and more in the Gloucester Public Schools. GEF-funded programs are highlighted in yellow above. To learn more visit our website: www.thinkthebest.org.

