James Compito
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EDUCATION

Worcester Polytechnic Institute (WPI) – Worcester, MA
Bachelor's of Science in Biomedical Engineering | GPA: 3.97 May 2027
Master's of Engineering in Biomedical Engineering May 2028

TECHNICAL SKILLS

Laboratory: Swine study monitoring, NIH/3T3 subculturing, sterile techniques, confluency assessment.
Software: SolidWorks Design (CAD), Arduino MATLAB (Data analysis), MS Office Suite, NI ELVISmx, BOX
Medical Technology: C-arm, veterinary anesthesia machine, Tandem/Omnipod Insulin Pumps, Dexcom CGM

RESEARCH AND ENGINEERING EXPERIENCE

Major Qualifying Project: Maternal Health Monitoring System, WPI June 2026 – Present
- Designing a durable maternal monitoring system for early detection of Preeclampsia in low-resource settings
- Evaluating inflatable wrist cuff design for accurately measuring blood pressure and other vitals.
- Arduino-programmed ESP32 controls cuff inflation and deflation with pressure sensor, pump, and solenoid.

Computer Aided Design – SolidWorks, WPI October 2026 – December 2026
- Collaborated with three others to design an L-Shaped desk suitable for college students in design and cost.
- Collaborating with entire class to take apart an engine, model its parts, and reassemble a 3D-printed version.

Economic Design of Transtibial Prosthetic Limb, WPI October 2025 – December 2025
- Designed cost-effective transtibial prosthetic leg (PLA socket, silicone molding, & stainless-steel pylon).
- Conducted keyword library searches to translate reported data into functional and performance specifications.
- Applied prototype iterations through Pugh analysis, ISO standards, and verification & validation testing.

NIH/3T3 Cell Culture & Imaging, WPI October 2025 - December 2025
- Monitored cell line through guided independent study, and ensured cells were proliferating and healthy.
- Analyzed the biocompatibility of substrate coatings and solid/liquid items on cells, based on cell health.

WORK EXPERIENCE & INTERNSHIPS

Assistant Lab Technician, PracticePoint, Worcester, MA June 2026 – Present
- Monitor animal subjects in the operating room during swine studies and assist in cadaver studies supporting medical device and technique development for clients; Assist with C-arm imaging and drug delivery.
- Collaborate with the Clinical Laboratory Specialist on animal model monitoring and protocol revisions.

Summer Camp Counselor, Camp Setebaid**,** Mifflinburg, PA July 2025 – July 2026
- Supervised children with Type 1 Diabetes; monitored campers all day and collaborated with medical staff to assist with Tandem t:slim/Mobi, Omnipod, and CGM devices

AI Fellow, Handshake AI May 2026 – Present
- Worked remotely to evaluate, refine, and test AI model-generated images, videos, text, or synthetic speech.

Guest Service Attendant, The Golf Club at Mansion Ridge, Monroe, NY March 2021 – Present
- Delivered customer service to members and guests, ensuring clients enjoy their golf rounds.

HONORS & LEADERSHIP

Patrick P. Lee Foundation Scholarship, WPI 2025 – Present
Member of Alpha Eta Mu Beta (AEMB), WPI 2026 – Present
NCAA DIII Football Defensive Back #24; NEWMAC All-Academic Team, WPI 2023 – Present