

Christian Taylor

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Education

BACHELOR OF SCIENCE IN COMPOSITE MATERIALS ENGINEERING (B.S) | MAY 2022 | WINONA STATE UNIVERSITY

- **GPA: 3.89**
- President of the Society of Plastics Engineers (SPE)
- Member of the National Society of Collegiate Scholars (NSCS)
- Related coursework: Mechanics of Composite Materials, Polymer Science and Characterization, Composites Manufacturing, Manufacturing System Analysis, Computer Applications of Engineering, Heat & Mass Transfer.
- Technical Skills: Microsoft Office, Excel, SolidWorks, CAD, Mold Flow, FEA
- Materials Testing: ASTM and ISO Standards, Tensile, Flexural, Compression, Shear, Impact, Fiber Burn-Off
- Characterization: Microscopy, TGA, DSC, TMA, DMA, FTIR, ^1H and ^{13}C NMR Spectroscopy
- Manufacturing: LEAN, 5S, Vacuum Layup, Filament Winding, Pultrusion, Extrusion, Injection Molding, Continuous Improvement

ASSOCIATE OF SCIENCE | DECEMBER 2018 | MCHENRY COUNTY COLLEGE

- Received an A grade in a research writing course as part of the university's English requirement
- Completed proficiency coursework in AutoDesk Inventor 3D CAD and Solid Works
- Graduated with High-Honor Roll accreditation

HIGH SCHOOL DIPLOMA | MAY 2015 | CARY GROVE HIGH SCHOOL

- **ACT Score: 30 overall, 32 in Math & Science**
- Four years in **Project Lead The Way STEM**: Engineering Design, Principles of Engineering
- Graduated with High-Honor Roll, Dean's list, National Honors Society, and State Scholar accreditation

Experience

ENGINEERING INTERN | AVIENT/POLYONE CORPORATION | WINONA, MN | MAY 2021 – AUGUST 2021

- Designed and tested steel mezzanine structures to OSHA standards using SolidWorks and FEA for material sorting platforms; these were then blueprinted and fabricated following a pitch and approval process via the resident engineering team
- Worked in LFT pellet production (pultrusion) and collaborated with engineering team on implementing process improvements
- Operated injection molding machines to create working parts, determine product failures, and improve current process
- Conducted mechanical testing of ASTM and ISO molded samples from LFT production
- Collaborated with interns across other disciplines from around the country as a part of the internship program

COMPOSITE CRAFTSMAN | SANBORNE/MERRIMACK CANOE CO. | WINONA, MN | MAY 2020 – CURRENT

- Part-time/Full-time employment as a craftsman handling every aspect of building thermoset reinforced composite fabric canoes, including: E-Glass, Carbon fiber, and Kevlar.
- Experience with Prototype development, Wet-hand Layups, Tooling Gelcoat application, Woodworking and Composite Fabric preparation
- Responsible for process scheduling and communicating between Sales and Finishing departments

PATTERN MAKER ASSISTANT | WINONA PATTERN AND MOLD | WINONA, MN | DEC. 2019 – MARCH 2020

- Part-time/Full-time employment as a tradesman involved in the full production process of a wide variety of projects from raw material to finished product
- Experience with Manual and CNC Machining, Wood Working, Fiberglass, Plastics and Rig Assembly
- Unique production work for industries including Commercial Aviation, Military and Defense, Automotive and Industrial Equipment
- Received Forklift and Industrial Hoist training

UNDERGRADUATE RESEARCH ASSISTANT | WINONA STATE UNIVERSITY | WINONA, MN | SEP. 2019 -CURRENT

- Utilizing the Markforged Mark Two (Composite 3D Printer) to compare Laminate Layup Sequence to Unidirectional and LFT Thermoplastic Theoretical Models
- Experience creating and compiling literature reviews
- Hands on experience utilizing and maintaining different aspects of Fused Deposition Modeling systems

CNC MACHINIST | SWISS AUTOMATION INC. | BARRINGTON, IL | DEC. 2015 – DEC. 2018, SUMMER 2019

- Full-time employment as an operator including duties such as maintenance & setup assistant
- Proficiency with a variety of 6-axis Swiss style CNC lathes (CITIZEN, STAR, DECO, etc.)
- Hands on experience with a variety of material: Plastics, Brass, Aluminum, Titanium, Lead Steel, Carbon Steel etc.
- Manufactured a variety of hydraulic, medical and aeronautic equipment

NUTRITIONAL ASSISTANT | ADVOCATE GOOD SHEPARD HOSPITAL |BARRINGTON, IL | 2014-2015

- Structured and monitored dietary requirements for patients with a variety of health complications
- Received letters of recognition in outstanding work-ethic and on-the-spot problem solving

Skills & Abilities

LEADERSHIP

- Served as President and Treasurer for the WSU chapter of the Society of Plastic Engineers (SPE)
- Lead Petty Officer (LPO) in the United States Naval Sea Cadet Corps for 5 years
- Served year-long term as council head at St. Barnabas Lutheran Church
- Helped organize philanthropy event for the Pi Kappa Phi fraternity

COMMUNICATION & PROBLEM SOLVING

- Conducted research review seminar to a panel of engineers as part of senior level coursework – WSU
- Presented safety device senior design project to a panel of licensed engineers – Cary Grove High school

SERVICE

- Years of volunteering experience including home refurbishing, child development, clean-up projects etc.