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| **Cody Alexander Sheltra** |
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# Professional Experience and Education

**R&D Program Manager**, Advanced Structures & Composites Center, University of Maine 2019-Present

* Non-technical program manager responsible for multiple, overlapping, $5-10M ITAR & CUI DOD research contracts, consisting of 7-10 cooperating faculty, and totaling over 100 persons.
* Compiled federal grant proposals, leading to $6.65M in successful funding.
* Member of internal Quality and Accreditation, and Research Security councils.

**Research Engineer III**, Advanced Structures & Composites Center, University of Maine 2019-Present

* Developed a novel machine and manufacturing process for continuous fiber reinforced thermoplastics.
* Directly worked on development of FRTP Rebar, Field-Forming of FRTP Bridge Girders, Mechanical and Structural testing of composites, and Tooling Creation with World’s largest 3D Printer (2019).
* Titled “Resident Expert in Long Fiber Thermoplastic Composites Manufacturing” by cooperating faculty.

**Research Engineer I,** Advanced Structures & Composites Center, University of Maine 2017-2019

* Facilitated $3 Million of various composites manufacturing, and mechanical testing deliverables.
* Instated LSS based systems for a 30-person research team, resulting in creation of a system for streamlining research milestones.
* Led manufacturing of the world-record longest 3D Printed Composite Mold (2017), subsequently led manufacturing and testing of a full-scale 42’ Rapidly Deployable Hybrid Bridge specimen.

**Undergraduate Research Assistant VI,** Advanced Structures & Composites Center, University of Maine 2012-2017

NASA HIAD, DHS Secure Shipping Container, ERDC, UTC Aerospace Projects

* Designed and fabricated structural testing set-ups, developed mechanical testing procedures, composites manufacturing, created technical work instructions, report writing.

# Education

Professional Science Master’s – Engineering & Business (Composites Materials), University of Maine 2020

Research Project: Development of a Manufacturing Method for Field Bending Thermoplastic Composite Rebar for Concrete Reinforcement. Advisors: Roberto Lopez-Anido, Ph.D., P.E.; William Davids, Ph.D., P.E.

B.S. – Mechanical Engineering Technology, University of Maine 2017

Design Project: Haptic Feedback Floor Design & Testing for Virtual Reality Simulations

Advisor: Brett D. Ellis, Ph.D., P.E.

**Certifications**

* Engineer Intern: Fundamentals of Engineering Exam [Mechanical], *May 2017*
* Certified Six Sigma Green Belt, American Society for Quality (ASQ), *expected August 2020*
* Certified Composites Technician - Vacuum Infusion Process*, ACMA, expires 03/3/2022*
* Certified Composites Technician – Compression Molding*, ACMA, expires 08/25/2022*
* SOLIDWORKS Professional – Mechanical Design, *C-HZ9EG8PCH4, May 2016*
* SOLIDWORKS Associate – Additive Manufacturing, *C-HZ9EG8PCH4, April 2019*
* ACI Concrete Field Testing Grade I, *American Concrete Institute*, *01397760*, *expires 06/08/2022*

**Professional Affiliations**

* American Society of Testing and Materials (ASTM)
* American Composite Manufacturers Association (ACMA)
* American Society of Mechanical Engineers (ASME)