

Matthew Clevenger is a mechanical engineer with expertise in precision mechanical design, high-accuracy motion systems, and manufacturing engineering. At ESi, he works in the Civil/Structural practice out of the Charlotte, NC office.

Prior to joining ESi, Matthew worked in manufacturing engineering roles supporting automated and manual assembly operations, where he developed tooling, fixtures, and process improvements to enhance productivity, quality, and safety. He also served as a teaching assistant for Mechanics of Materials at UNC Charlotte. His senior design project focused on the design and development of a high-precision, low-cost linear air bearing stage with less than 3-micrometer positioning resolution for lithography research applications. The project involved the design of custom vacuum-preloaded air bearings, precision metrology structures, vibration-sensitive mechanical systems, and the integration of optical metrology, linear motor actuation, and closed-loop motion control systems.

Education

BS, Mechanical Engineering. University of North Carolina-Charlotte. 2026

Positions Held

Engineering Systems Inc., Charlotte, North Carolina

- Staff Consultant, 2026 – Present

LeGrand, Concord, North Carolina

- Mechanical Engineering Intern, 2024 – 2025

Doosan Bobcat, Statesville, North Carolina

- Manufacturing Engineering Co-Op, 2023 – 2023

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Areas of Specialization

- HVAC, Plumbing & Refrigeration
- Commercial Structures
- Residential Structures