

SAM MORAN

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EDUCATION

The University of Texas at Austin – Austin, Texas
Pursuing Bachelor of Science in Mechanical Engineering

Expected graduation date:
May 2028

EXPERIENCE

Romeo Engineering Inc – *Mechanical Engineering Intern* **September 2023 – August 2024; May 2025 – present**
4217 Hahn Blvd., Fort Worth, Texas

- KUKA® 6-axis robot and custom servo fuse roll-former for Auto-Out® fire suppressors. Reduced cycle time by 60%; improved safety by not requiring human operation to work in energetic material environment.
- Thursday Poles® pultruded composite utility pole factory. Saves 100,000 trees per year, per factory.
- Simpson Strong-Tie® servo packer at 6 parts/second. Reduced malfunction rate by 50%, increased cycle time by 20%; improves safety by not requiring operators to touch sharp, barbed plates.
- Foreign object debris detection camera for Hexcel®/Sikorsky® UH-60 Black Hawk® blade spar cell. Saves \$150,000+ USD blades from damage due to operator error.

PROJECTS

Mechanical design in SolidWorks® – *Romeo Engineering Inc*

- Reverse-engineered seven customer machines and contributed to originally designing nineteen machines in CAD.
- Guaranteed that deflection of machine frames is within tolerance using Finite Element Analysis.
- Created draw sheets with GD&T callouts for manufacturing and quality control purposes, saving 15% of professional engineers' time.
- Accelerated project development by generating Bills of Materials for purchasing department.

Industrial animation and video editing – *Romeo Engineering Inc*

- Developed 25 industrial digital twins in Modo® and NVIDIA® OmniVerse™ to simulate desired machine movement.
- Utilized rigging, particle systems, and UV mapping to demonstrate machine operation to customers.
- Streamlined marketing workflows by exporting animations to video-editing software for original marketing content.

LEADERSHIP EXPERIENCE AND ACTIVITIES

UT Sustainable Building Initiative (SBI) – *Vice President and Co-founder* **August 2024 – present**

- Designed and constructed three small houses and roads in Brookshire, TX to house low-income persons.
- Designed two full-scale houses for construction in Houston, TX. High-rise retrofit in Houston in progress.
- Evaluated and specified HVAC and plumbing systems for homebuilding projects.
- Researched and implemented sustainable technologies to reduce carbon footprint of homes.
- Handled combined \$8 million USD project budget and controlled costs to fit within budget.

SKILLS, CERTIFICATIONS, AND MEMBERSHIPS

- Technical Skills: SolidWorks® 3D CAD and FEA; Modo® 3D animation and NVIDIA® OmniVerse™ industrial simulation; Twinmotion® and Unreal Engine® visualization; Adobe Creative Cloud; Microsoft Office Suite.
- Standards: ASME Y14.5M and Y14.41 GD&T, NIST 800-171 security (CUI).
- U.S. citizen. Eligible to work in the U.S. with no restrictions.
- Student member of ASME, SME, and NSPE-TX.

REFERENCES

- **Paul Oehler, PE** – Vice President, Romeo Engineering Inc
 - Phone: (817) 656-0048
 - Email: paul.oehler@romeoeng.com