Stone Mountain Technologies, Inc.
Engineering Intern
Johnson City

About
SMTI’s vision is to be the world leader for absorption heat pump technologies, which are used to heat and cool homes, buildings and water. SMTI is an engineering centered startup company focused on the development of a low-cost and scalable absorption heat pump technology to replace conventional direct-fired space and water heating systems in a range of residential and light commercial markets. SMTI has a range of heat pump systems in the development stage with two close to production-ready (10 kBTu/hr and 80 kBTu/hr). The 4+ other products (20 kBTu/hr, 40 kBTu/hr, 140 kBTu/hr and 2 RT AC) under development are in different stages.

For a potential hire, SMTI offers a unique opportunity in several ways. The ability to learn and be on the cutting edge of a technology that has the potential to revolutionize the heating industry. The ability to learn and work on a large range of analytical, practical, experimental and manufacturing-related problems. The ability to work hands-on with highly skilled and motivated engineers and technicians.

Intern roles and responsibilities
An intern would support the fabrication and experimental evaluation of a 40 kBTu/hr prototype absorption heat pump system during the summer of 2020. They would be expected to manage (with mentor support) the experimental testing and evaluation of the first prototype. This would include performance evaluation of the system and individual components. Deliverables would include:
- Completed experimental test matrix
- Compiled and reduced system and component data
- Detailed evaluation of system end component data

Required qualifications
- Strong desire to learn about thermodynamic systems, heat and mass transfer, mechanical systems, research & development process, and product design.
- Completion of junior-level undergraduate mechanical courses including thermodynamics, heat transfer and fluids.
- Self-motivated and ability to work independently and on open-ended assignments

Preferred skills
- At least one (1) prior internship with an engineering focus
- Completion of advanced undergraduate coursework: thermal system design, Thermodynamics II, etc.
- SolidWorks or similar CAD software experience