# Sahil Aggarwal, EIT

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## EDUCATION

**Stony Brook University, Mechanical Engineering MS** **Stony Brook, NY**

*August 2026 - Present (Expected May 2027)*

*Relevant Coursework: Vibration & Control, Aerial Robotics, Advanced Control Systems, Total Quality Management*

**Stony Brook University, Mechanical Engineering BE** **Stony Brook, NY**

*August 2022 - May 2026*

## SKILLS

**Technical**: SolidWorks Mechanical & Electrical, Fusion360, MATLAB, Altium, Microsoft Office Suite, Airtable,
**Certifications:** FE Mechanical, ISO9001:2015 Internal Audit Training

## EXPERIENCE

**Mechanical Engineer,** *Unique Technical Services* *February 2026 - Present*

- Designed custom fabricated sheet metal components, junction box layouts, and harness drawings for EV applications.
- Executed engineering change updates across multiple vehicle platforms, including onboard charger integration, 12V distribution layout updates, and busbar/terminal placement.
- Authored SOPs for wire machine maintenance and complete vehicle assembly instructions (tools, torque specs, procedures), and began implementing ISO 9001:2015 quality management practices into engineering workflows.
- Completed foundational Altium PCB design work and marked up electrical schematics to support EE team design updates.
- Developed Python tools to automate BOM generation, procurement workflows, and manufacturing documentation, reducing manual data entry across engineering processes.

**Senior Intern,** *Unique Electric Solutions* *January 2024 - January 2026*

- Produced 2D harness drawings and 3D CAD reference models used across 15+ EV conversion builds.
- Redesigned legacy SolidWorks drawings with the ME team, converting bent sheet metal parts to welded assemblies and authoring new mechanical drawings and welding instructions, reducing EV costs by $10K.
- Designed sub-assembly layouts for electrical junction boxes and mechanical drawings for sheet metal components, coordinating fit between wiring, enclosure, and mounting constraints.
- Developed build-sequencing and installation documentation across 4-5 bus builds, creating interactive eDrawings with embedded BOMs that let technicians click on parts to identify them directly.
- Supported vehicle commissioning and EE testing across the conversion fleet, including hands-on drilling and part installation.
- Onboarded and mentored ~10 incoming interns, training them on SolidWorks and CAD workflows and serving as their go-to technical resource.

**Sr. Clean Energy Tech Transfer Fellow***, LIHTI* *January 2023 - March 2024*

- Conducted patent research and industry landscape analysis in green hydrogen production, engaging 50+ industry experts and building a working understanding of global hydrogen industry benchmarks and development.
- Completed an NY I-Corps Lean Bootcamp, conducting 20 customer discovery interviews over a three-week period and applying Lean Startup methodology to two patented technologies' proof-of-concept development.
- Led recruitment and onboarding for the program's 2nd Cohort — including outreach, interviews, and selecting 4 trainees to advance to full Fellows — and presented proof-of-concept strategies to the CEBIP advisory board.

**Cohort Member,** *Energy Terminal Emerging Leaders Program* *February 2024 - April 2024*

- Expanded professional network through interactions with experts and like-minded peers.
- Modeled emissions scenarios using MIT EN-ROADS as part of a global energy industry cohort.