

A Team With a Vision of a Healthy and Sustainable Planet, Created by Talented Engineers and Entrepreneurs

Position:

Process Engineer 1

Overview:

Next Rung Technology (NRT) is a team of 15-20 engineers, providing engineering consulting and execution services to organizations developing and delivering sustainable technologies - with expertise in water, energy, renewables, biotechnology, next-generation foods and materials, and wastewater treatment. NRT is headquartered in Greentown Labs in Somerville, MA with some team members working remotely throughout the US (mostly Northeast).

Our team is seeking Chemical Engineers to identify client needs, develop solutions, and conduct the necessary tasks to meet their technical requirements. Chemical engineers in this role will be responsible for collaborating with technical and non-technical client teams daily to scale up and commercialize their sustainable technologies.

Responsibilities and Duties:

- Development of process design packages, including FELO-3 level design
- Create process flow diagrams and Excel models of prototype and production systems
- Produce and maintain piping and instrumentation diagrams (P&IDs) and other process documentation, including equipment, valve, and instrument lists
- Collaborate with equipment vendors for the design and construction of skidded process systems
- Specify and procure essential process equipment, including tanks, pumps, valves, instrumentation, etc.
- Participate in and lead technology evaluation for process development
- Support system commissioning and start-up
- Develop technoeconomic models based on client data to effectively model the cost of goods supported by a back-end plant design
- Develop safety systems and protocols for prototype and production systems
- Develop and maintain SOP documentation for prototype and production systems
- Translate R&D work into prototype functional requirements and specifications
- Opportunities to travel domestically and internationally
- Participate in building and growing company culture and values via
 - Participation in 1 or more marketing teams, including engagement in sector-wide thought leadership through conference attendance, development and presentation of technical content (blog posts, abstracts, papers & presentations, participating in podcasts & interviews), as well as attending and taking notes on intro meets with potential clients
 - o Participation in quarterly goal setting and reviews with your supervisor



Preferred Qualifications:

- BS or MS in Chemical Engineering
- Deeply motivated by the climate crisis and its downstream impacts
- 0-3 years' experience: Some work experience in chemical engineering, process engineering, or related fields preferred but not required; or recent graduate with a degree in chemical engineering, process engineering, or a related field from an accredited institution and demonstrated hands-on experience (projects, co-ops, etc.)
 - Note: Role designation will be commensurate with experience and candidates with additional experience will be considered for advanced individual contributor roles
- Exceptional communication, organizational, and documentation skills
- Experience in one or multiple of the following:
 - Chemical process scaleup design
 - Technical due diligence
 - Technical grant writing
 - PFD and P&ID generation via AutoCAD
 - Fermentation processes (gas, solid state, aerobic, anaerobic)
 - and product purification
 - o Next generation feedstock processing and circular economy
 - Carbon capture practices
 - Cellular agriculture
 - Process control philosophy and systems (PID controllers and PLC controllers)
 - Solid-liquid separation and filtration
 - Reactor design, assembly, and validation
 - Creating chemical system simulations/models
 - Sensor integration and data acquisition
 - Familiarity with one or more software languages (Python, C++, MATLAB, etc.)

This is a full-time role located at the NRT office at Greentown Labs in Somerville, MA. Applicants must be authorized to work in the United States.