



## System Modeling Engineer

Full Time Opportunity; Berkeley, CA

### **About Noble Thermodynamics**

Driven by our mission to radically and quickly reduce the world's carbon emissions and accelerate the transition away from fossil fuels, Noble Thermodynamics is bringing to market its breakthrough in power generation technology offering zero-carbon, dispatchable, and affordable power. Our technology is a reciprocating engine with no exhaust!

We seek to grow our team with individuals who share our core values of professional excellence, perseverance, integrity, and team spirit, and who strive to build strong and genuine relationships with their peers. Most importantly, we celebrate diversity, work to achieve equity, and are committed to creating an inclusive environment among our growing team.

Noble Thermodynamics is a cleantech R&D startup rooted in Berkeley, CA backed by the U.S. Department of Energy, the U.S. National Science Foundation, the California Energy Commission, and top tier industry and academic partners. More information can be found at [www.noblethermo.com](http://www.noblethermo.com).

### **Position Summary**

Noble Thermodynamics is looking for a passionate and motivated System Modeling Engineer to support the R&D of our advanced power generation technology. As the System Modeling Engineer, you will be expected to design, create, and optimize numerical models able to simulate real systems' behavior. You will be expected to perform 3D CFD engine combustion simulations, assist design engineers with thermal and fluid FEA, build 0D and 1D process models to assist in the development of plant control algorithms and propose cost-effective experimental test matrices. This role demands a team-spirited individual, able to coordinate and collaborate with a multidisciplinary team and assist on multiple projects simultaneously.

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## Responsibilities

- Develop and validate 0D, 1D and 3D engine and power plant numerical models.
- Carefully create simulations and experimental test plans to support the identification of key dynamic characteristics of the engine and balance of plant systems.
- Conduct detailed analysis of simulation and test results to draw strong conclusions about operating characteristics
- Enhance analytical practices to improve model accuracy and increase execution speed.
- Coordinate closely with design and control engineers.
- Contribute to the generation of innovative ideas and develop project plans.

## Qualifications

- MS degree or higher in Mechanical Engineering or a similar engineering field from an accredited institution with 2-5 years of relevant experience.
- Mature understanding of engine/power system design principles and R&D methodology.
- Demonstrated experience with CAE tools such as GT-Suite, WAVE, or BOOST, and associated model correlation and validation methodologies.
- Demonstrated experience with CAD tools such as Solidwork or Inventor.
- Demonstrated experience with CFD tools such as CONVERGE or ANSYS Fluent and associated model correlation and validation methodologies.
- Demonstrated experience with engineering programming languages (e.g. Matlab, Python, Fortran, C, C++).
- Effective verbal and written communication skills.
- Goal-oriented, with the ability to see the bigger picture, valuing long term gain over short term progress.
- Demonstrated ability to operate and thrive in a collaborative as well as independent, dynamic, fast-paced start-up environment.

## Bonus Qualifications

- Driven and self-directed, enthusiastic contributor with the ability to drive decision-making within small teams.

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## Employment

Type: Full Time

Location: Berkeley, CA.

Condition: Authorized to work in the United States.

## Benefits

Competitive salary and stock options.

Health, Vision, and Dental coverage.

Vacation, Holidays, Sick leave, and Parental leave Paid time off.

## Disclaimer

Noble Thermodynamic Systems, Inc. is an Equal Opportunity Employer and does not discriminate on the basis or perception of race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status or any other consideration made unlawful by federal, state, or local laws.

It is company policy to perform background checks and review candidate references. In compliance with federal law, all persons hired will be required to verify identity and eligibility to work in the United States and to complete the required employment eligibility verification form upon hire. Noble Thermodynamic Systems, Inc. participates in the E-Verify Program.