



Head of Hydrogen Engineering

Verne is developing innovative hydrogen technology that enables heavy-duty transportation (trucks, ships, and planes) to operate with zero emissions. Heavy-duty transportation is vital to the functioning of our global society, but is also responsible for 10% of global greenhouse gases. If vehicles switch from fossil fuels to green hydrogen, they can operate without producing any emissions. However, two challenges prohibit this transition: storing enough hydrogen onboard to power their operations, and access to this hydrogen to refuel.

Verne is bringing to market two technologies that simultaneously address these challenges. First, Verne has developed a new way to increase the density of hydrogen gas. This equipment will be installed at refueling stations, converting low density hydrogen into ultra-high density hydrogen fuel. Second, Verne has developed a way to store this high-density hydrogen onboard vehicles. Together, these two technologies more than double the amount of hydrogen that can be stored onboard vehicles, doubling vehicle range and allowing them to carry a full payload. With Verne's technology, vehicles can maintain current operations while eliminating harmful emissions.

Verne has made significant strides toward this massive industrial transformation, and is in the midst of pilot program design with vehicle manufacturers. Verne has gained the support from leading technology institutions, including funding from MIT, Caltech, and Stanford, and all three co-founders were selected as fellows in the inaugural cohort of Breakthrough Energy's new Fellowship program, supported by Bill Gates.

What you'll do:

As Head of Hydrogen Engineering, you will lead the engineering development of our hydrogen systems that will be utilized at heavy-duty refueling stations. These novel systems convert gaseous hydrogen into high-density hydrogen on-site. You will be a core technical leader at Verne. Specifically, you will lead the following areas of Verne's hydrogen refueling business:

Innovation and Early Demonstrations

- Design and optimize various methods for hydrogen compression and cryogenic cooling
- Conduct process modeling and energy efficiency analysis for multiple designs and use-cases
- Lead the design, build and test of our first prototypes, developing conceptual and detailed designs while working closely with specialty vendors to develop prototypes
- Champion safety protocols and procedures for demonstrations of our early prototypes, and develop refueling best practices for early pilots
- Contribute to the ongoing development of Verne's portfolio of intellectual property

Development Plan

- Manage the 5-year product roadmap for our refueling system, including innovation, design, and development
- Develop and support our product certification processes to prepare for product launches in early markets
- Establish close relationships with key infrastructure partners and component suppliers

Technical Leadership

- Support the CTO as he leads the growth and development of Verne engineers, including junior engineers and world-class hydrogen experts
- Champion a culture of safety and high-quality work across design, development, and implementation

Key qualifications:

- Background in chemical or mechanical engineering, M.S. or beyond
- 5+ years of industry experience with hydrogen, cryogenic systems, high-pressure systems, liquefaction, and/or energy analysis
- 5+ years overseeing and managing gas projects, with attention to technical excellence and safety
- Excellent leader, listener, and team player
- Interest in entrepreneurship and leading engineering for a growing early-stage startup
- Passion for driving large-scale decarbonization and a desire to be at the forefront of the global efforts to combat climate change

Compensation and benefits:

- Competitive salary and equity incentives
- Medical and dental insurance
- Flexible hours & paid time off
- Join a collaborative and passionate team
- The opportunity to shape the rapidly growing green hydrogen industry
- The opportunity to work closely with leading transportation decarbonization partners

Location

- San Francisco
- Key vendors, suppliers, and partners in the broader Bay Area

About the Verne team

At Verne we value a diversity of approaches to critical thinking. We aim to establish an environment that welcomes different perspectives, where informed discussions flourish and each individual voice is respected. The team thrives in asking questions to gain a more nuanced understanding. We all strive to provide constructive feedback and ultimately aim to make each of us a better listener, thinker, and leader. Lastly, our mission is ambitious and difficult, so we don't forget to have fun!

About Verne

Verne is an Equal Opportunity Employer and does not discriminate on the basis of race, color, creed, gender, religion, marital status, registered domestic partner status, age, national origin, ancestry, physical or mental disability, medical condition, sex, genetic information, sexual orientation, military and veteran status or any other consideration made unlawful by federal, state, or local laws. It also prohibits unlawful discrimination based on the perception that anyone has any of those characteristics, or is associated with a person who has or is perceived as having any of those characteristics.

To apply: Please send resume and cover letter to contact@verneh2.com