

INTERNSHIP – GRID MODELING (SUMMER 2023)

Woburn, MA

COMPANY INFORMATION:

Providing everyone in the world access to clean, reliable, affordable energy will require substantial expansion of global electricity transmission networks. VEIR is developing [a new generation of High Temperature Superconductor \(HTS\)-based transmission lines](#), enabling long distance, reliable, low loss, cost-effective power transfer in far smaller right-of-ways. VEIR's innovations overcome the main barriers to transmission expansion, enabling the world to access the very lowest cost renewable power. And transmission is important: A 1% increase in the rate of transmission expansion might [reduce the US's total 2030 emissions by almost 20%](#).

JOB DESCRIPTION:

You will join VEIR's analytics team, performing grid modeling of VEIR's transmission lines in PSSE or PLSF and a scripting language like Python or MATLAB, as necessary. You will work closely with both the hardware engineering team and with potential customers, forming VEIR's product strategy. Besides your core work, your internship may also involve research and development activities in applied superconductivity (useful for fusion and quantum computing), cryogenics, vacuum systems, and high voltage engineering. VEIR is still small; learning opportunities are numerous, and your work will matter.

DUTIES & RESPONSIBILITIES:

- Model VEIR's conductors in [PSSE](#) or [PLSF](#)
- Perform additional modeling, as needed, in Python, MATLAB, and possibly [JULIA](#)
- Collaborate closely with VEIR's hardware team and potential customers to drive product specifications
- Assist Project Managers to support ongoing lab operations
- Maintain laboratory site and experimental facilities, e.g., orderliness, cleanliness, coordination of craft work, site preparation, site clean-up, and waste management

PREFERRED EDUCATION/EXPERIENCE:

- Actively enrolled in accredited university
- Pursuing a degree in science or engineering
- Experience with PSSE or PLSF (though not critical)
- Experience with MATLAB, Python, or JULIA programming
- Experience with CAD in SolidWorks, Ansys, and/or COMSOL may be useful
- Proficient in Microsoft Office tools
- Outstanding written and verbal communication skills

REQUIRED SKILLS:

- Ability to contribute to multiple simultaneous projects effectively
- Ability to deliver on critical project goals and milestones in an independent environment
- Ability to communicate clearly and concisely (written/oral) with all levels of the company
- Ability to motivate others and build team unity
- Experience working effectively with cross-functional teams in a fast-paced, dynamic environment

ADDITIONAL NOTES:

- Working conditions: Research laboratory environment, periodic work in outdoor environments (outdoor testbeds, pilot demonstrations)
- **The internship is paid, and Woburn, MA, is proximate to Boston.**

We appreciate your application!
VEIR Inc.