Scientific Numerical Modeler

Makai’s submarine cable group is looking for an Ocean/Mechanical Engineer or Physicist or Applied Mathematician with a graduate degree and very strong skills in numerical modeling of complex mechanical, acoustic, and hydrodynamic systems. Makai has a strong tradition and track record of providing clients with unique and reliable solutions for their most complex problems, and maintains the world’s leading submarine cable modeling software. This position is for a lead numerical modeler at Makai.

Primary responsibilities for the Scientific Numerical Modeler position would include:

- Lead role in extending the capabilities of Makai’s existing numerical models and in developing new ones as needed. The candidate will initially work on a collaborative two-man team and will be brought up to speed on existing complex numerical models developed in FORTRAN (and some C++) used in the commercial and military sectors for towing and/or installing submarine cables or arrays.
- Lead the group in terms of applying and developing numerical models to solve the problems brought to our attention by our clients, with lead responsibility for developing tools to solve problems not readily solved with existing tools and software.
- Aid in writing/maintaining necessary documentation, technical reports, progress reports, user manuals, etc.
- Providing input and assistance in developing new technical proposals for seeking future research and development funds.
- Other duties as needed to complete project requirements in timely and cost effective fashion.

The ideal candidate will have:

- Graduate degree in Engineering, Physics, or Applied Math.
- Extensive experience in developing and maintaining large numerical packages modeling physical systems. Work done as part of graduate thesis can be counted.
- Experience applying (or the capability to learn) modern algorithms for solving complex physical systems and differential equations.
- Strong programming skills. Experience in FORTRAN is a big plus but not required.
- Should be organized and must have the ability to plan and execute large model development works in a timely manner.
- Should display initiative and be self-motivated.
- All of Makai’s work is in the ocean or marine related. Therefore, ocean related experience is a plus.
- U.S. citizenship strongly preferred.

Most work will be done at the Makai Research Pier (pictured), located in Waimanalo, Hawaii but limited travel may be required to participate in related conferences and providing advanced training to clients.
At Makai, there is a camaraderie of smart people who work together as a team to solve difficult problems. Usually at other companies there are weak links, but at Makai there are none.”

- Kevin, Makai Engineer

“I love the laid back, flexible atmosphere. We work hard, but we also enjoy living in Hawaii and having a good work-life balance.”

- Venkata, Makai Engineer

Makai provides engineers with interesting and challenging projects, a competitive salary based on experience, a strong list of company benefits, and a beautiful and unique workplace.

To apply, submit a resume and cover letter via email to Jose.Andres@makai.com.

About Makai:

Makai was established in 1973 as a diversified ocean engineering and naval architecture firm. We have become world-recognized leaders in several areas of ocean technology: deep water pipeline design, marine renewable energy, marine vehicles and deep water submarine cables.

Today Makai serves a broad range of international clients. Makai has developed a unique and powerful culture where creativity, intelligence, hard work, and independence are celebrated. These values are tempered with respect, humility, flexibility, and an open, cooperative demeanor. Our engineers truly love working here and they feel as though they are part of a carefully selected team of only the very best engineers

For more information on Makai capabilities and previous and current projects, please visit www.makai.com.

About Makai’s Submarine Cable Group:

Makai’s submarine cable group formed in 1983 when Makai first developed a finite segment cable model to accurately install a deep water power cable in Hawaiian waters. The success of the project led to development of the at-sea, real-time cable model. The accuracy of the model has been validated on numerous occasions during precision cable array at-sea installations. Currently, Makai’s suite of software is the #1 worldwide standard for telecom subsea cable lays and planning. It has been used for installation of over 400,000 km of subsea cable. In addition to telecom installation, Makai software has been used for seismic array, power cable and defense applications.

Makai’s cable group currently has 6 engineers and software developers. The majority hold advanced degrees in engineering, physics and computer sciences and have both engineering as well as programming experience.

For more information on Makai’s Submarine Cable Group, please visit http://www.makai.com/c-cab-sw/